



# THE SRI LANKA JOURNAL OF SURGERY

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ABSTRACTS OF THE  
48<sup>th</sup> ANNUAL ACADEMIC SESSIONS - 2019  
OF  
THE COLLEGE OF SURGEONS OF SRI LANKA  
IN COLLABORATION WITH  
THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH  
AND  
THE SAARC SURGICAL CARE SOCIETY

The College of Surgeons of Sri Lanka

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**AND**

**THE SAARC SURGICAL CARE SOCIETY**

**"ACCESS TO ACCEPTABLE CARE FOR ALL ... AND BEYOND"**

**August 22<sup>nd</sup> – 24<sup>th</sup> 2019**  
**Galle, Sri Lanka.**

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**August 22<sup>nd</sup> – 24<sup>th</sup> 2019**  
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# ABSTRACTS

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# ORAL PRESENTATIONS

## **OP 22 - Factors affecting self-efficacy and adjustment to ostomy in a cohort of patients with intestinal stoma.**

**K.N.T. Perera, D.N. Samarasekera, U. Jayarajah,**  
R. Waidyasekera

**Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka.**

### **Introduction**

Creation of an enteral ostomy affects the lifestyle and quality of life. Improving self-efficacy and adjustment is an important aspect in coping with the change in lifestyle. This study was aimed to assess the level of self-efficacy, adjustment to ostomy and its contributory factors.

### **Methodology**

Fifty-three ostomy patients who presented for follow up at a surgical clinic of a tertiary care hospital in Sri Lanka over a period of 1 year were assessed. Relevant demographic and ostomy related data were collected using an interviewer administered questionnaire. Validated scores such as Stoma care self-efficacy scale(SCSE) and the ostomy adjustment index(OAI-23) were used. Statistical analyses were done using Spearman's correlation and Mann Whitney-U test.

### **Results**

The median age was 44 years(range:13-77). The majority were males(n=37,70%). The majority were colostomies (n=41,77%) and all others were ileostomies. Twenty-eight(53%) were temporary stomas. Median follow up duration was 25 months(range:12-186). The median self-efficacy score was 49(range:22-63) and the OAI-23 score was 78(range:46-95). There was a significant correlation between the SCSE and OAI-23 scores (Spearman's rho=0.289, p=0.044). Higher OAI scores were noted in permanent ostomies(p=0.045). Cancer patients had higher scores indicating better adjustment and self-efficacy however, it was not statistically significant(p=0.08). There was no significant association between the SCSE and OAI scores and parameters such as age, sex, follow-up duration, body mass index and the presence of complications.

### **Discussion and Conclusions**

There is a significant positive correlation between OAI and SCSE. Those with permanent ostomies and cancer patients had a better self-efficacy and adjustment to stoma.

## **OP 25 - Resection margins and lymph node clearance in open and laparoscopic colorectal cancer surgery;**

### **A prospective case control study.**

**DWTN Marapana, J Jayasinghe, D Wickramasinghe,**  
N Wickramarachchi, P Wijeratna, I Upanishad,  
S L Senevirathna, MIM De Zoysa  
**University of Colombo, Sri Lanka**

### **Introduction**

The laparoscopic approach to colorectal cancer surgery has been gaining popularity in the last decade. However, there have been concerns about adequate lymph node dissection and securing safe resection margins in laparoscopic oncological surgery.

This study was aimed at comparing the lymph node (LN) clearance and surgical resection margins for open and laparoscopic colorectal cancer surgery.

### **Methodology**

Data was collected prospectively from patients who underwent open and laparoscopic colorectal cancer surgery at the University Surgical Unit of the National Hospital of Sri Lanka from April 2016 to May 2019. The histopathology records were analysed to determine the longitudinal and circumferential resection margins(CRM) and the number of lymph nodes harvested. The resection margins were classified as positive or negative. The total number of LN examined was evaluated. Chi square was used to compare CRM and T test was used to compare the LN harvest.

### **Results**

A total of 127 patients(76 males and 51 females) were studied. 75 procedures were laparoscopic and 52 procedures were open. All patients had clear longitudinal resection margins. 73 patients in the laparoscopic group(97%) and 47 patients(90%) in the open group had clear CRM(p>0.05). A total of 2093 LNs (mean 16.5) were resected in all procedures. 659 lymph nodes were removed during open procedures (mean 12.6) and 1431(mean 19.08) were removed during laparoscopy (p<0.05).

### **Discussion and conclusion**

CRM was comparable in the two groups. Laparoscopic group had a significantly higher LN harvest. Acceptable results can be obtained with laparoscopic colorectal cancer surgery.

## **OP 28 - Patient perception of long-term outcome after laparoscopic ventral mesh rectopexy.**

S Singh, K Ratnatunga, R Bolckmans, O Jones,

K Gorissen, I Lindsey, C Cunningham

**Department of Colorectal Surgery, Oxford University Hospitals, United Kingdom**

### **Introduction**

Assess patient satisfaction and long-term outcome after laparoscopic ventral mesh rectopexy (LVMR).

### **Methodology**

Patients who underwent LVMR between 2004 and 2017 were identified from a prospective database. Attempts were made to contact all patients by telephone interview using a standardised questionnaire to record the indication for LVMR, change in symptoms, long-term outcome and overall satisfaction.

### **Results**

848 patients were identified who underwent LVMR. Median follow-up was 7 years (IQR 5-9). 544 out of 848 (64%) patients were contacted successfully and 478 (56%) agreed to participate in the study. Mean age of those contacted was 58 years(18-98). Indications for LVMR were obstructive defecation syndrome (ODS) in 192(40%), faecal incontinence (FI) in 106 (22%), both ODS and FI in 101(21%) and other conditions in 79(17%). Improvement in bowel symptoms was reported in 69% and no change in 19%. New onset of pelvic pain appeared in 97 patients (20%). Sexual function was improved in 48/227(21%) at the time of questionnaire and worse in 45/22 (20%). 302 out of the 478 patients who took part were satisfied with the outcome of LVMR and (63%) and 364 patients (76%) would recommend this procedure to others with the same condition.

### **Conclusions**

LVMR appears to offer acceptable long-term outcomes in the majority of patients. However, a proportion will develop de novo pelvic pain and although some patients report benefits in sexual function there is a similar risk of a negative impact on sexual function. These factors should be highlighted for patients considering this operation.

## **OP 11 - Laparoscopic sleeve gastrectomy (LSG) for morbid obesity; do we have satisfactory weight reduction results? A single unit experience.**

Milan Gunawardene, Nimantha Wijerathne,

Thejana Wijerathne

**Department of Surgery, University of Ruhuna, Sri Lanka**

### **Introduction**

Obesity is a pan-endemic health problem. LSG is one of the effective surgical treatments for morbid obesity. This study evaluates the weight loss success in morbidly obese patients following LSG done in a tertiary care referral center.

### **Methodology**

142 patients who underwent LSG over a period of four years were followed up to measure weight and Body Mass Index(BMI) after six and twelve months postoperatively. Weight loss success was considered excellent if the Percentage Excess Weight Loss(%EWL) or Percentage Excess BMI Loss(%EBMIL) >65%, good if 50-65% and poor if <50%.

### **Results**

Mean pre-operative weight was 146.8kg and BMI was 44.62kgm<sup>2</sup>. After six months, mean post-operative weight was 86.4kg with a mean %EWL of 68.42%. Mean post-operative BMI was 31.46kgm<sup>2</sup> with a mean %EBMIL of 67.07%. After twelve months, mean post-operative weight was 68.7kg with a mean %EWL of 88.47%. Mean post-operative BMI was 25.26kgm<sup>2</sup> with a mean %EBMIL of 98.67%.

### **Discussion and conclusion**

Morbidly obese patients in our study had excellent short term and long term weight reduction results compatible to international standards, following LSG.

## **OP 07 - Assessment of the quality of patient-oriented information on the internet on minimally invasive surgery for colorectal cancer**

Ruvindu H Waidyasekera, Nishan T Perera, Umesh Jayarajah, Dharmabandhu N Samarasekera

### **Introduction**

An observational study aimed to assess the quality of websites and their readability of patient education information available in the internet on minimally invasive surgery for colorectal cancer.

## Methodology

Internet searches on "minimally invasive surgery for colorectal cancer", "laparoscopic surgery for colorectal cancer" and "robotic surgery for colorectal cancer" was performed on search engines Google, Yahoo! and Bing. The first 50 websites for each keyword on each search engine were assessed for quality. Quality and readability were assessed by DISCERN instrument and validated Flesch Reading Ease Score (FRES) respectively.

## Results

Fifty-five websites provided patient oriented information. The median DISCERN score was 41(range:24-66) and median FRES score was 33.9(range:10.4-59.8) indicating a low readability. Twenty-seven sites (49.1%) were affiliated with hospitals or clinics. Benefits of surgery and the surgical procedure were mentioned in 76.4% and 81.8% respectively. However, pre-op preparation, surgical complications and quality of life were not mentioned in 49(82.1%), 42(76.4%) and 44(80%) sites respectively. Overall on DISCERN, 7(12.73%) were identified as "Excellent", 25(45.45%) as "Good" and 23(41.82%) as "Bad". There was no significant correlation between FRES and DISCERN scores (Spearman's rho=0.211, p=0.122).

## Conclusion

The quality of patient information on minimally invasive surgery for colorectal cancer is highly variable with a majority missing important information. The readability is suboptimal and have potential for improvement. As the internet is expanding as a readily available source of information, it is essential to implement steps to ensure that highest quality information is provided without any commercial motivation.

Disclosure: Presented at ELSA 2018 sessions

### OP 30 - Predictability of postoperative outcomes by a simple exertion test.

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## Introduction

Surgical outcomes depend on various factors including physical fitness. Risk stratification identifies patients who benefit from specialised intervention, precluding the need for routine cardio-respiratory assessment. Studies on the relationship between dynamic physical parameters and

postoperative outcomes are negligible in South Asian populations. This study explores the use of dynamic cardiorespiratory parameters to predict postoperative outcomes in a sample of patients at a tertiary hospital.

## Methodology

This is a prospective analytical study on adults undergoing elective major abdominal surgery in selected general surgical units. Heart rate (HR), blood pressure (MAP), respiratory rate (RR) and SaO<sub>2</sub> were recorded before and after performing 30 seconds chair stand-up test. Hospital stay (LoS), ICU / HDU stay and postoperative morbidity were recorded.

## Results

Eighty-nine patients, mean age 52.79 (27-90) years and male to female ratio 1 1.6 were included. Major, major plus and complex major operations were 40, 32 and 17 respectively. A moderate correlation (r -.350, p .001) observed between 30 seconds chair stand up test performance and LoS. Dynamic physical parameters in relation to exertion test were not associated with the outcome parameters.

## Discussion and conclusions

Simple exertion test like 30 seconds chair stand up test can be used to predict postoperative outcomes. This could facilitate selective specialised preoperative assessment and preparation for HDU/ICU care.

### OP 10 - Low energy falls among the elderly: descriptive study of injury patterns and risk factors.

**G M D Kariyawasam**, M L M Mushraf, N Wijerathne, S J Jayasinghe  
**Colombo South Teaching Hospital, Sri Lanka**

## Introduction

Low energy falls are a common cause of hospital admissions in the elderly. While causing a significant burden on the public health sector, the patient's quality of life is also affected. Preventive measures may help reduce the public health burden in a fast growing elderly population.

## Methodology

Elderly patients presenting following minor falls to the accident service, Colombo South teaching hospital during a period of two months were included. Data was collected on Socio-demographic characteristics, mechanism of injury, injury patterns and duration of hospital stay.

## Results

Eighty five patients (age range 60 to 97 years, mean 74 ) were included of which 69 (81.2%) were females. Majority of the falls were accidental - 63.5%, while vasovagal attacks (24.7%), vertigo (7.1%), hypoglycemia (2.4%) and seizures (2.4%) accounted for the rest. 76.5% of patients fell from a standing position while others fell from seated (16.5%) or lying down (7.1%) positions. Injury patterns – Fracture neck of femur (29.4%), Head injuries (24.7%), Distal radius fracture (18.8%), Soft tissue injuries (10.6%), Lower limb fractures (7.2%), Upper limb fractures & dislocations (5.9%), Vertebral fractures (3.5%). Presence of risk factors which predispose to falls – Diabetes (35.4%), Hypertension (40%), Ischemic heart disease (9.4%), Degenerative arthritis (10.6%). Mean duration of hospital stay was 3.5 days (range 1 to 11 days).

## Conclusion

Majority of falls occurred among the females. Health education and screening for osteoporosis at well women clinics may help reduce osteoporotic fractures. The use of walking aids and bed bars could be promoted.

## OP 16 - Usage of safety precautions methods among patients presented to ASU Colombo following grinder cut injuries: descriptive study

**KDHD Weerasekara, PGN Ruvinda, M Bandara,**  
**Post Graduate Institute of Medicine,**  
**University of Colombo**

## Introduction

Angle grinder is a commonly used tool which often cause occupational injuries. The injuries are associated with extensive soft tissue damage requiring surgery, prolong hospital stay and sometimes leads to permanent disability. This study aims to study the usage of the standard safety precautions among those affected.

## Methodology

All victims of grinder cut injuries attended to ASU Colombo between February 2019 and March 2019 were included in the study. Results were analyzed retrospectively using SPCC (20.0).

## Results and analysis

Forty four patients were included. All were males between ages 21- 65. Mean age was 39.16years. Only one of them had a formal training while 20 (45.5%) of them had less than 5 years of experience with It. Forty (90.9%) of them didn't use

the guard wheel while forty three (97.7%) didn't use a side bar. None of the grinder had a dead man's switch. Commonest site of injury was lower limb 28(63.3%). Most injuries (30) were due to kickbacks. Kick back injuries and usage of side bar didn't have a statistical significant connection. ( $p=0.714$  SE=0.058). No association between injury method and the sight of injury was found. ( $P=0.211$  SE 0.4)

## Discussions

Most of the grinder cut victims didn't adhere to standard safety precautions, may be due to their lack of formal training. The relevant authorities has a responsibility in keeping up the standard

## OP 01 - Laparoscopic inguinal hernia repair in children: to cut or not to cut that is the question?

**Arvind Sinha, Mahaveer Singh Rodha, Manish Pathak,**  
**Rahul Saxena**

**All India Institute of Medical Sciences, Jodhpur, India**

## Introduction

To compare the results and complications of two techniques of laparoscopic paediatric hernia repair.

## Methodology

All the children who had laparoscopic inguinal hernia repair done at AIIMS Jodhpur during the period of Sept 2016 to Nov 2017 were retrospectively studied. Patients were divided in two groups depending on whether the hernial sac was divided or not divided before taking a purse-string suture. Operating time for each case was recorded along with any immediate post-operative complications. The patients were followed up in the Outpatient department and a follow-up evaluation of cosmesis and recurrence was done along with other symptoms like neurological pain.

## Results

Total 39 patients were included as per inclusion criteria. Mean age of the patient was 35.4 months (range is 2 months to 12 yrs). We had 7 female patients. Side of the hernia was bilateral in 7 patients, left side =13 and right side=19 making a total of 46 hernias. Hernial sac was divided before suturing in 17 patients while the sac was left intact before suturing in 22 patients. Mean follow up was 28 months (range: 24 to 39). Age, gender, side of hernia, complications and hospital stay were comparable. There was a significant difference between the mean operating times in patients who underwent division of hernia sac with patients in whom the sac was not divided before putting purse-string suture ( 92.5 mins vs

65.7)respectively,  $p= 0.0101$ ). One patient in the division of sac group had injury to testicular vessel while dividing the sac while one patient developed hydrocele on follow-up in the other group. There was no recurrence in either of the group.

### **Conclusion**

Repair was done with or without dividing the peritoneal sac gives comparable results with lower operating time without sac division over a sufficiently prolonged follow-up. The laparoscopic repair results in better cosmesis and better post-operative pain relief.

### **OP 02 - Chronic groin pain in Desarda vs. Lichtenstein hernia repair: a prospective randomized controlled study**

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**Department of General Surgery, AIIMS Jodhpur, Jodhpur, Rajasthan.**

### **Introduction**

Chronic pain after inguinal hernia repair is common. The aim of this study was to compare Desarda and Lichtenstein repair for inguinal hernia in terms of chronic groin pain.

### **Methodology**

100 patients with unilateral uncomplicated inguinal hernia were randomized to either Desarda repair (n=50) or Lichtenstein repair (n=50) under local anesthesia and were evaluated for pain at 6 hours, day 1, day 7, 1 month and 3 months after operation. Operative time, surgical complications, time to return to normal gait and work, and overall patient satisfaction were recorded.

### **Results**

There was no significant difference between Lichtenstein and Desarda group in terms of proportion of patients having chronic pain. Twenty two (44%) patients in Lichtenstein group had chronic pain and twenty one (45.7%) patients had chronic pain in Desarda group ( $p =0.871$ ). There was no significant difference in terms of level of pain at postoperatively at 6 hours, day 1, day 7, 1 month and 3 months between Lichtenstein and Desarda group. No significant difference was observed in hematoma formation, wound infection, recurrence rate, seroma, foreign body sensation Mean time for patients to return to normal gait was approximately 0.5 day earlier for Desarda group ( $p$  value=0.29). Mean time for patients to return to normal work was comparable ( $p$  value=0.99). Desarda group had a slightly higher satisfaction rate than Lichtenstein group (9.1%).

### **Conclusion**

Desarda repair is not inferior to Lichtenstein repair in the short term with regard to complications or pain.

### **OP 05 - Comparison of patient centered outcomes and perioperative factors of Open vs Laparoscopic PUH repair**

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**NHSL, Sri Lanka**

### **Introduction**

Para Umbilical Hernia (PUH) repair is one of the frequently performed elective surgical procedures. Current global trend is shifting from the conventional open paraumbilical hernia repair towards laparoscopic PUH repair. Objective of this study is to compare perioperative factors, complications and patient centered outcomes of Laparoscopic PUH repair with open PUH repair in a single surgical unit of a tertiary care hospital in Sri Lanka.

### **Methodology**

42 consecutive patients undergoing PUH repair (22-laparoscopic, 20-open) from 1/4/17 to 31/3/18 were reviewed prospectively with regard to demographic data, operative time, complications and patient centered outcomes. Patients >18yrs, without severe cardiopulmonary disease or coagulopathy were included in this study. Patients with recurrent, obstructed or strangulated PUH were excluded. Data was analyzed using SPSS data analytical software.

### **Results**

Demographic data of the two groups were well matched with regard to age and gender. Patients undergoing laparoscopic PUH repair found to experience less post-operative pain ( $P<0.05$ ) and return to routine daily activities early, with less hospitalized period ( $P<0.05$ ). There was no significant prolongation in operative time ( $P=.081$ ) or intraoperative blood loss ( $P=.092$ ) between two groups. Patients who underwent open PUH repair developed more post-operative complications including seroma (30% vs 9%), hematoma (25% vs 4%), and wound infections (10% vs 0%).

## Conclusion

Laparoscopic PUH repair is associated with better patient centered outcomes, with less postoperative pain and less postoperative complications when compared to open PUH repair with no significant change in operative time or blood loss.

## OP 09 - Laparoscopic total extraperitoneal repair of inguinal hernia without mesh fixation: results of a prospective cohort

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### Introduction

Total extraperitoneal (TEP) repair is an established approach for the treatment of inguinal herniae. During surgery, fixation of the mesh is done by many, aiming to minimize mesh migration. A tacking device is a deficiency in many rural hospitals in Sri Lanka. Hence, this cohort assesses the effectiveness of non-fixation of the mesh.

### Methodology

All repairs were performed by a single surgeon at Base Hospitals Warakapola and Kantale from 10/2017 to 01/2019. All who underwent the procedure were included and data was collected prospectively to find the operative time, intra-op and post-op complications. All patients had un-anchored mesh placement with gradual deflation under direct vision. A clinic follow-up at one month and a telephone inquiry at 3 and 12 months were carried out to look for evidence of complications.

### Results

A total of 23 male patients with a mean age of 59 years (range:42-78) were included with a total of 41 repairs (bilateral = 36, right-sided = 3 and left-sided = 2). At surgery, 13 were direct 7 were indirect and 3 had both components. Peritoneal entry occurred in two(8.7%). The mean operative time was 47 minutes. Postoperatively, acute urinary retention was noted in two(8.7%). Eighty-three percent were discharged on post-op day 1. There were no recurrences and one patient (2.4%) had mild chronic pain.

### Conclusion

Laparoscopic TEP repair without anchorage of mesh carries no added complications with an acceptable outcome.

## OP 13 - Preoperative diagnosis of pancreatic schwannoma - myth or reality

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### Introduction

Pancreatic schwannoma (PSN) is a rare, well-encapsulated tumor of the pancreas. Preoperative diagnosis of this tumor is uncommon due to marked degenerative changes, its rarity, overlapping clinical and imaging features with other pancreatic neoplasms, hence leading to major surgical resection in most cases.

### Methodology

We encountered two patients with non-specific abdominal discomfort and normal biochemical investigations. CECT abdomen with pancreatic protocol revealed a well-defined hypodense solid mass lesion in the pancreatic neck, posterior to spleno-portal confluence. MRI abdomen showed hyperintense mass on T2WI, hypointense on T1WI, no diffusion restriction and target appearance. MRCP ascertained remoteness of lesion with pancreatic duct. Based on these features, diagnosis of benign pancreatic mass lesion possibly neurogenic tumor was made.

### Result

Enucleation was performed successfully in both cases and pancreatoduodenectomy was avoided. None of the patient had pancreatic fistula and were discharged on 5th post-operative day. Histopathology was suggestive of PSN with characteristic both Antoni A and B areas, many vercoy bodies and immune-reactive for S-100 protein. At the end of 1 year follow up, both patients are doing well with no evidence of recurrence.

### Conclusion

Pre-operative multimodal imaging features favoring PSNs lead us to perform enucleation of the masses. Extensive pancreatic surgeries can be avoided if imaging can provide clues about the benign nature of the pancreatic masses pre-operatively.

## **OP27 - Cholangiocarcinoma in Sri Lanka: experience of a tertiary referral centre.**

**H S L Perera**, A A Pathirana, T Wijerathne, M Jayawardene, R G M S Nandasena, B D M R Chandraguptha, S A Piyarathne, B Dissanayake

**Department of Surgery,  
University of Sri Jayewardenepura, Sri Lanka**

### **Introduction**

Cholangiocarcinoma (CC) is a malignancy with a poor outcome, with rates of operability being 91% distal (dCC), 56% hilar (hCC) and 60% for intrahepatic (iCC) cholangiocarcinoma. Data on CC in Sri Lanka is sparse.

### **Methodology**

Details of 108 patients with CC from January 2016 to May 2019 were obtained from a database and analysed. Patients represented 13 districts in the country.

### **Results**

The average age of presentation was 62 years. Male patients accounted for 54% of cases. The relative incidence of dCC, hCC and iCC were 31%, 50% and 18.5% respectively. Of the hCCs, type II accounted for 50% of cases. While dCC and hCC presented with obstructive jaundice (79%) and cholangitis (14%), iCC presented with abdominal discomfort/pain (35%) and isolated loss of weight (25%). CA 19-9 levels were elevated in dCC (50%), hCC and iCC (70%). The level was >1000U/ml in iCC (40%) and hCC (28%). Metastatic disease was found in 28% of patients with dCC and hCC and 35% of patients with iCC at the time of presentation. 30% of the patients with dCC and iCC were suitable for surgery, while only 18.5% of patients with hCC were deemed resectable.

### **Discussion and conclusion**

The demographic characteristics of CC in Sri Lanka are comparable with studies of western countries. However, the rates of operability were comparatively lower, probably due to late presentation and poor fitness levels for major surgery. Higher CA 19-9 levels were noted with iCC compared with the other two types.

## **OP 15 - Immediate reconstruction with Becker Expander and Ti Loop Bra mesh – experience in a single institution in London**

**Ruwan Kasturi**, Ahmed Elbaz, Shihanie Rubecka, Asad Khan, Jason Saunders

**Newham University Hospital**

### **Introduction**

Sub pectoral Becker expander as single stage breast reconstruction is well established. Titanized polypropylene mesh is used to cover the lower lateral implant pole.

Newham, an inner London setting with high levels of socioeconomic deprivation and multi ethnicity, we adhered a permissive policy to offer reconstruction.

### **Methodology**

Retrospective review of patients receiving immediate breast reconstruction between 2014 and 2015 via assessment of electronic and paper patient notes. Risk factors and outcomes (implant loss) were measured at 3, 12 and 24 months.

### **Results**

Nineteen underwent immediate reconstruction with Becker Expander. Median age 50 ( Range 22-83), median BMI 28.8 (Range 18.7-46) Five (26%) smokers. Only 2 had a single comorbidity( 10.5%). Seventeen (89.5%) had more than one comorbidity.

Thirteen (67%) had axillary node clearance, four ( 21%) received neo adjuvant chemotherapy (NACT) and 12 (63%) received adjuvant chemotherapy. Ten (52%) received adjuvant radiotherapy (RT). Two(10.5%) developed capsular contracture post radiotherapy. Three(15.7%) expander implants replaced by silicon gel implants . One had implant loss at 3 months ( 5%) Implant failures at 1 year was 4 (21%) and at 2 years 5 (26%).

### **Conclusion**

Implant loss at 3 months is at an acceptable limit but loss at 1 year is high. However, this is in a cohort of patients in whom many units would have denied them any immediate reconstruction. Hence the ethical dilemma. At what cost is a unit's figures against those of the individual patient?

**OP 26 - An objective assessment of clinical training in breast cancer management between UK and Sri Lanka within the concept of creating a 'Specialist within a Generalist'.**

**W T T de Silva, W P C D Priyadarshani, A de Silva**  
**National Hospital of Sri Lanka, Colombo, Sri Lanka**

**Introduction**

The new training programme with Special Interest in Breast Surgery was introduced by the PGIM in 2012. Accepting the challenge, several senior general surgeons developed systems in their general surgical units to receive Post MD trainees. The study is a qualitative comparison of practices in two centres; UK and Sri Lanka.

**Methodology**

Case load, case mix, decision making, procedure exposure for breast cancer surgery and exposure on-call hours to emergency general surgery was compared in a training unit in UK and Sri Lanka for one year.

**Results**

From April 2018 to April 2019, in Sri Lanka, the trainee was exposed to 52 Breast clinics, 48 Breast MDT meetings. Total case load in Breast Cancers was 110; 35, WLE with cavity shavings, 68 SLNB, 42 axillary clearances, 75 mastectomies and 9 breast reconstructions. From October 2016 to October 2017 in UK, 50 'One Stop' Breast Clinics and 48 follow-up clinics were attended. 16 WLE with/without cavity shavings, 15 SLNB, 10 axillary clearances, 11 mastectomies and 4 reconstructions were performed. Duration of exposure to general surgery casualties was 576 hours in Sri Lanka and 1008 hours in UK.

**Discussion and conclusion**

Programme leading to creation of a surgeon who serves as a 'Specialist during day time and Generalist at night' is considered as an effective method of training a surgeon. Data supports the conclusion that the Sri Lankan Breast Surgery training programme is comparable to that of the UK center on case Load, case mix, decision making and procedure exposure in Breast Surgery.

**OP 23 - A study on utilization of facilities in the intensive care unit by elective surgical patients in a tertiary care institution: case for provision of high-dependency units in surgical wards.**

**S De Silva, A Gunarathne, AA Pathirana,**  
**BDMR Chandraguptha**  
**Professorial Surgical Unit - Colombo South Teaching Hospital.**

**Introduction**

Intensive care is indicated for patients requiring intensive monitoring and /or organ support. This study aimed at evaluating the extent of ICU care utilized by elective surgical patients and to analyze the indications vs. utilization of ICU care by them.

**Methodology**

This is a retrospective cross sectional study carried out in the surgical ICU of a tertiary care institute, enrolling 47 elective surgical patients over a period of 3 months. Data was collected with a pre structured data collection form.

**Results**

Majority of patients were middle aged, belonging to American Society of Anaesthesiologists Physical Status 2 and underwent colorectal, upper GI or hepatobiliary surgeries. Main comorbidities among the study population were diabetes and hypertension. Mean duration of ICU stay was 2 days. Most patients were monitored non-invasively within the ICU (68%). Organ support was required by only 17% of patients. Most frequent indication for preoperative ICU booking was surgical/ anaesthetic complexity determined by BUPA schedule of procedures (83%). However ICU resources were mainly utilized for provision of analgesia particularly in the form of epidural infusions (52%).

**Conclusion**

A majority of patients admitted to the ICU, needed only monitoring and pain management, which could be readily provided in a high-dependency unit, which is much less resource intensive than an ICU.

#### **OP04 - Prevalence of venous thromboembolism following total knee arthroplasty: prospective cohort study among Sri Lankan patients**

**PCI Wijesinghe, V G K Chathuranga, S Ranmuthuge, D Munidasa**

##### **Introduction**

Venous thromboembolism (VTE) is a serious complication following total knee arthroplasty (TKA). The number of arthroplasties done in Sri Lanka is increasing annually. Therefore the incidence of VTE following TKA can be expected to increase. This study aims to assess the prevalence of VTE following TKA in Sri Lankan patients.

##### **Methodology**

A prospective cohort study was done among patients undergoing TKA. The participants were on thromboprophylaxis according to the National Institute of Clinical Excellence (NICE) guidelines. Standard rehabilitation protocol was followed in all patients. Risk stratification for VTE was done using the Caprini risk assessment model for VTE. All patients were followed up for 28 days following TKA and assessed clinically and radiologically to estimate the prevalence of VTE.

##### **Results**

36 patients participated in the study. 91.7% were female. The mean age was 63.09 (52-74). The mean Caprini Score 6 (6-7). None of the patients developed symptomatic VTE. Duplex US did not reveal any patient with asymptomatic deep vein thrombosis (DVT). None of the patients developed pulmonary embolism during the 28 day follow up.

##### **Conclusion**

The risk of VTE following TKA among Sri Lankans is less compared to studies done in western populations.

#### **OP 12 - A novel approach to simultaneous bilateral percutaneous nephrolithotomy: an initial experience of two tertiary care centres in Sri Lanka.**

**K H Parana Palliya Guruge, D H C H P Dankanda, D Dhanaratna, R M P K Ekanayake, I A C P Marasinghe, R M C S Rathnayake**

**Provincial General Hospital - Badulla**

##### **Introduction**

To evaluate the clinical efficacy and peri-operative morbidity of a novel surgical approach, in a series of patients who

underwent simultaneous bilateral-PCNL (SB-PCNL).

##### **Methodology**

A descriptive case series was conducted using the retrospective data of 10 patients who underwent SB-PCNL from January-2016 to December-2018 in two tertiary care hospitals. The following parameters were gathered: stone characteristics, total operation time, stone-free rates, requirement of ancillary procedures, length of stay and post-operative complications.

The novel approach employed the following modifications to the technique published in the literature. Cleaning and draping of both sides were done simultaneously, followed by bilateral punctures at inception and the less complex side was tackled first. Both the operating table and the image intensifier (fluoroscopy) were maintained in their original positions.

##### **Results**

7/10 were male. Mean age: 41.1±10.1 years. Stone size: 1.0-2.5cm. Mean Guy's Stone Score: 1.7. Mean operating time: 76 minutes. Total 23 tracts, 18 units had single-access puncture, the remaining had two and three punctures, each. Tract sizes: thirteen 22-Fr tracts, eight 24-Fr tracts and two 16.5-Fr tracts (SB-mini-PCNL). All were totally tubeless except for one who had bilateral DJ-stents placed. All patients were deemed completely stone-free. One patient developed ureteric colic post-op, which was confirmed to be a clot colic by NCCT-KUB (Grade I complication - modified Clavien-Dindo Classification), managed conservatively.

##### **Conclusion**

Findings suggest that the novel approach for SB-PCNL is safe and efficacious. However, a study with a larger sample size would provide conclusive evidence about the alternate technique used.

#### **OP 19 - Can prostate specific antigen (PSA) level be used as a predictor of prostate volume (PrV) in benign prostatic hyperplasia (BPH)? Preliminary Study.**

**P G N Ruvinda, K D H D Weerasekara, D G S Udayanga, S K Goonesinghe, D De Silva**

**Post Graduate Institute of Medicine,  
University of Colombo**

##### **Introduction**

BPH is a common problem amongst elderly men. Assessment of prostate volume by Ultrasonography (USS) is an adjunct in management of the problem. PSA is a widely available serum study used as a potential screening tool. Long waiting lists for

USS may delay the assessment of prostate volume early, and offer appropriate treatment early.

### Methodology

Thirty six consecutive patients, diagnosed to have BPH were prospectively included in this study. Their demographic data, initial PSA level and prostate volume by Trans-abdominal ultra-sonogram were assessed. Patients with symptomatic urinary tract infections, recent urethral catheterization and recent prostatitis were excluded. Spearman's Correlation test was used for analysis.

### Results

The mean age of study cohort was 67.33 years (SD = 7.69). Mean serum PSA level was 7.57ng/ml (SD =17.73), mean prostate volume was 45.5ml (SD = 25.40). Prostate volume was plotted against PSA level and following graph was derived.

**Graph 1:** Correlation between PSA in ng/ml and Prostate size in ml.

**Analysis:** There was a positive correlation( $r=0.402$ ) between PSA level and the prostate volume ( $p=0.015$ ). The derived relationship could be presented as follows;

Prostate volume in ml= $45.1+0.05$  PSA in ng/ml

### Conclusion

Serum PSA level can be used as a predictor of prostate volume in patients with BPH. However large scale prospective study in necessary to make recommendations.

## OP 21 - Assessing the validity of the pre-biopsy multiparametric magnetic resonance imaging PI-RADS scoring system.

**Rickaz Raheem**, Rakan Odeh, Iqbal Anjum, Tom Leslie

**Department of Urology, Milton Keynes University Hospital, UK.**

### Introduction

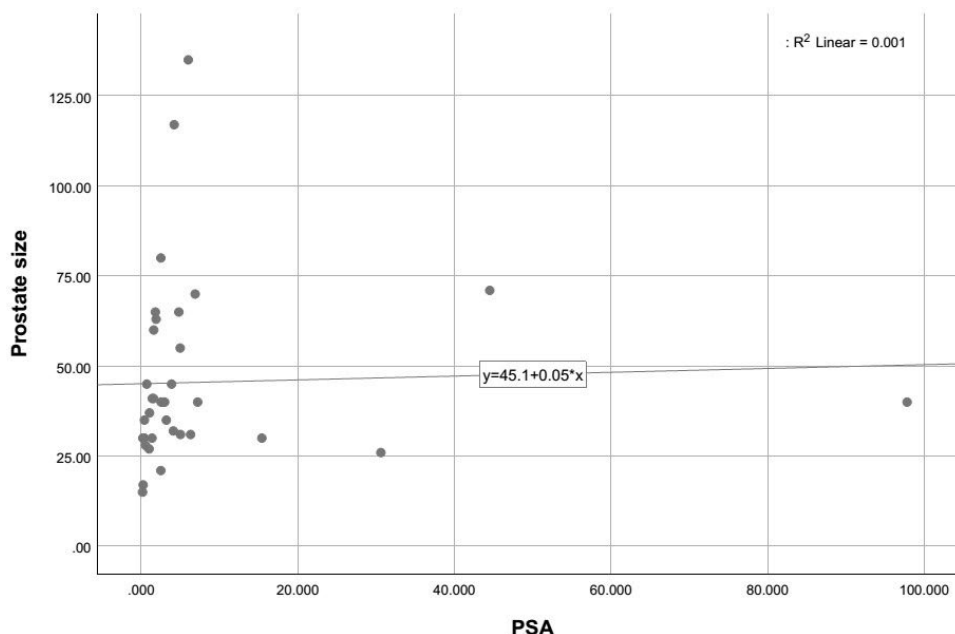
The objective was to compare the presence of clinically significant cancer (csCa) in trans-rectal ultrasound guided prostate biopsy specimens with the pre-biopsy multiparametric Magnetic Resonance Imaging (mp MRI) Prostate Imaging Reporting and Data System (PI-RADS) score.

### Methodology

A retrospective audit was performed on mp MRI prostate scans done at Milton Keynes University Hospital, UK from August 2017 to January 2018. Reports which mentioned a clear PI-RADS score or suggested presence / absence of cancer were evaluated against the biopsy outcome. Gleason score  $\geq 3+4$  was considered as csCa.

### Results

A total of 180 cases were reviewed and 53% of them showed cancer. Nine of 57 cases (15.7%) showed csCa when the MRI reported as PI-RADS 1,2 or not suspicious whereas, 41.8% csCa noted with PI-RADS 4, 81.5% with PI-RADS 5 lesions and 75% when the MRI was reported suspicious for cancer without a PI-RADS score mentioned. Five of biopsied PI-RADS 3 lesions (17.2%) showed csCa. A clear PI-RADS score has not been mentioned in 15% of the reports.



## Discussion and conclusion

We demonstrated approximately 15% of patients can have csCa even when the MRI is reported as normal. This fact must be emphasized to the patients when biopsies are avoided based on MRI reports. We also recommend including PIRADS classification in all reports for easy communication.

## OP 18 - Long-term quality of life following liver transplantation in a third world country with a free health care system.

**D S P Jayatunge**, S Gallage, C S Ekanayake, M A Niriella, A Dassanayake, M B Gunetilleke, W L A D Aruna Prasanna, L R Dissanayake, N Gunawansa, R C Siriwardana  
**North Colombo HPB and Liver transplant Unit**

### Introduction

There are no public funded liver transplant (LT) centres established in third world countries. In this unique setting no data are published on long-term survivors Quality of life (QOL).

### Methodology

20-post transplant patients with long-term follow-up were the subjects. They were assessed on basic demographic data, pre-operative liver status, post-operative complications and compliance to treatment. QOL was evaluated by SF-36 questionnaire. One recipient was matched with two pre-transplant cirrhotics comparing age, gender and Child score as the control group.

### Results

The median age was 54 years (27-67) and 85% (n=17) were male. The median follow-up was 17 months. The median MELD score was 17 (11-22) and 75% (n=15) were due to cryptogenic cirrhosis. Post-operatively three (15%) developed graft rejection, five (25%) had infections and ten (50%) suffered drug related complications. 95% (n= 19) of the population had satisfactory drug compliance.

The study population had significantly better QOL compared to control in all nine domains ( $p < 0.005$ ) including physical functioning (76% vs 52.7%), physical health (80% vs 7.9%), emotional problems (93% vs 17.1%), energy (77% vs 47%), emotional wellbeing (80% vs 61.1%), social functioning (86.9% vs 56.9%), pain (82% vs 47.5%), general health (67.5% vs 37.5%) and health change (82.5% vs 40%).

## Discussion and conclusions

Long-term survivors after LT has significantly improved QOL in a setting with limited resource.

## OP 20 - A cohort prospective descriptive study of ultrasound guided STD injection for varicose veins.

**N Shanthanayagam**, N Wijekoon, A Weerasooriya  
**Professorial surgical unit, university of Kaleniya**

### Introduction

Treatment for varicose veins is recommended in symptomatic patients. This study is designed to assess the outcome in a cohort of patients undergoing USS guided foam sclerotherapy for varicose veins in professorial vascular surgical unit, university of Kaleniya.

### Methodology

This is a prospective study in patients with symptomatic varicose veins (SFI, SPI, PI), who has undergone USS guided foam sclerotherapy for a period of 9 months from 09.07.2018 to 06.04.2019. This has a cohort of 107 patients. The patients have been followed up at one week, one month and six month intervals during clinic visits or via telephone interviews. The primary end points of the assessment were relief of symptoms (success), residual symptoms and recurrence.

### Results

There are 65 female and 42 male patients. Among them 44%, 46% and 10% had right side, left side and B/L varicose veins respectively. The mean volume of STD injected was 4.2ml with a mean treatment time of 10 minutes. At one week follow up, 72% had success and 38% had residual symptoms. At one month follow up, 65% had success and 35% had residual symptoms. At Six month follow up 81% had success, 15% had residual symptoms and only 4% had recurrence.

### Conclusions and discussion

There is an increasing proportion of success rate at six month follow up and a few recurrences. This is promising to be a novel and effective modality of treatment for varicose veins.

### **OP 03 - Foot care among patients with diabetic foot ulcers - descriptive study in a district general hospital.**

G M D Kariyawasam, V Tayaalan

District General Hospital Nawalapitiya

#### **Introduction**

Diabetic foot ulcers and related complications are a major cause of hospital admissions in Srilanka. Foot care is often neglected, particularly in the rural setup. This study was conducted to assess the level of adherence to diabetic foot care practices.

#### **Methodology**

Diabetic patients presenting with foot ulcers during a period of six months to a single unit at the District general hospital, Nawalapitiya were included. Patients were assessed on whether they had been previously advised on diabetic foot care at any point of their care and whether they adhered to good foot care practices such as regular foot inspection, proper nail care and use of well fitting protective footwear.

#### **Results**

Fifty two patients (25 males: 27 females, age range 38 to 78 years) were assessed of which 71.2% had ulcers on the plantar aspect while the rest had ulcers on the dorsum and the toes of the foot. Duration of the ulcers ranged from 1 week to 1 year (mean 3.8 months). 53.8% of patients had peripheral neuropathy. Only 14 (27%) patients had been previously advised on diabetic foot care. Only 25% of patients performed regular foot inspection and only 14% knew how to correctly cut their nails. Within the study population only 44.2% of patients used a footwear for activities outside the home environment and only 17 (32.7%) used a well fitting protective footwear.

#### **Conclusion**

Poor foot care among this community highlights the need for a proper educational programme for primary prevention of foot ulcers.

### **OP 31 - Resuscitative endovascular balloon occlusion of the aorta (REBOA) for trauma: a single center 5 years experience.**

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#### **Introduction**

Resuscitative endovascular balloon occlusion of the aorta (REBOA) is considered to be a bridging option to definitive or temporary control of non-compressible torso hemorrhage (NCTH). The aim of this study is to analyse 5-year experience of our department in REBOA use.

#### **Methodology**

In this retrospective study, all trauma patients admitted to our facility from December 2013 till December 2018 who underwent REBOA were enrolled. Indications for REBOA were as follows: traumatic cardiac arrest, severe hypotension (systolic blood pressure [BP] less than 70 mmHg) and abdominal and/or pelvic hemorrhage. Comparative computed matching was performed to a relevant no-REBOA (nREBOA) group of trauma patients treated at the same time period to evaluate effectiveness. This study was supported by a grant from the President of Russia #MK-5676.2018.7.

#### **Results**

Twenty patients per each REBOA and nREBOA group were included into analysis. No significant difference was found according to age (38.9±14.4), gender (75% males), and injury severity (median ISS 43.9 and 41.8, respectively). Median time from injury to REBOA was 120±48 minutes. Immediately after inflation, there was an increase of BP by 46 mmHg in average, while primary occlusion was performed in zone I in ¾ patients. Total time of aortic occlusion was 48±16 minutes. Immediate 12-hour lethality rate (who survived primary operations) was 31.6% in the REBOA group and 75% in the nREBOA group (p=0.010), although 30-day lethality was 75% and 95%, respectively (p=0.077).

#### **Conclusion**

REBOA might be an option in severe non-compressible torso hemorrhage as a temporizing technique, although our primary results demonstrate no significant difference in survival rate.

**OP 17 - Does printed CT films serve a purpose in Urological decision making? A tradition with a waste of taxpayers' money.**

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**Introduction**

Abdominal Computed tomography(CT) has become indispensable in surgical specialties including urology. Although console and CD based reporting is the gold standard, film printing with a high financial burden is still widely practised. Present study analyses the current need of CT films compared to the radiologist report with a few representative frames in urology.

**Methodology**

Abdominal CT of 80 consecutive patients at a tertiary centre were analysed. The Radiologist's report and film copies were assessed with regard to find the incremental benefit of the films and their influence on decision making.

**Results**

Out of 80 reports 23%(n=18)were contrast studies and 20%(n=16)were for malignant conditions. A median of 4 CT films with 20panels in each were printed. Additional axial and reconstructed cuts provided in 66%(n=53) of the population. A median of 2(n=65) films with 4 small panels provided the information given in the report .Additional visual information was required only in 13%(n=11)which were useful during surgical interventions such as percutaneous renal access and partial nephrectomy.

**Discussion and conclusion**

The practice of printing large number of films in abdominal is obsolete in developed countries. Present study highlights the gross overutilization of films and their ill found place in decision making. Present study affirms that hardly any additional information is obtained by printed films though it may have a limited place in urological interventional procedures. This study concludes that a large scale financial burden can be avoided by judicious printing of films and practising computer base reporting with a hard copy in an electronic medium.

**OP 29 - Does cessation of smoking reduce surgical recurrence after primary ileocolic resections for Crohn's disease in long-term.**

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**Department of Colorectal Surgery, Oxford University Hospitals, United Kingdom**

**Introduction**

This study aimed to evaluate the impact of smoking cessation on long-term surgical recurrence after primary ileocolic resection (ICR) for Crohn's disease (CD).

**Methodology**

All patients who underwent primary ICR for CD between 2000 - 2012 in two tertiary units were identified from a prospective database, applying strict inclusion criteria. The primary endpoint was surgical recurrence.

**Results**

In total, 283 patients were selected. Full smoking data was available for 242 (85.5%). One hundred sixty-nine patients (69.8%) were non-smokers (group 1), 42 (17.4%) active smokers at time of ICR and continued smoking up to last follow-up (FU) (group 2) and 31 (12.8%) quit smoking after ICR (group 3). Median FU was 111.8 months (IQR 84.0 - 147.6) and median time of smoking exposure after ICR for group 3 was 3 years (IQR 0 - 3). Kaplan-Meier survival analysis showed a significant higher surgical recurrence rate for group 2 compared to group 3 (16/42 vs 3/31, p=0.016). Additionally, at FU significantly more patients in group 2 without surgical recurrence were on therapy for CD compared to group 3 ( 15/26 vs 4/28, p<0.0008).

**Conclusion**

Smoking cessation after primary ICR for CD significantly reduces the risk of surgical recurrence in long-term.

**OP 14 - Effectiveness of ultrasonic guided obturator nerve block during transurethral resection of bladder tumour (TURBT) under spinal anaesthesia (SA).**

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**Introduction**

General anaesthesia is preferred during TURBT to provide muscle relaxation to prevent obturator jerk and bladder injury. However, due to the comorbidities of the patients and limited resources, GA may carry undue risks. Aim of the study was to determine the success of TURBT under SA with obturator nerve block.

**Methodology**

We analyzed 40 patients who underwent TURBT under spinal anesthesia with ultrasonic guided obturator nerve block (ONB) at Colombo South Teaching Hospital during a period of two years. Success of technique was evaluated in terms of obturator jerk, conversion to GA and outcome of surgery.

**Results**

Mean age was  $66 \pm 11.35$  (N=40). Three were females. Average tumour size was  $3.49 \pm 1.41$  cm (n=28). Nine patients had multiple tumors and one had extensive tumour. Rest had single tumour (n=32). Six patients had strong obturator jerk and half of them were converted to GA. Latter was measured as failure of ONB. Three had manageable mild form of obturator jerk and none was converted to GA. Rest (77.5%) had successful ONB. All Failed ONBs were administered by trainee anesthetists. No one had bladder perforation.

**Discussion and conclusion**

In experienced hands, SA with ONB is an effective alternative for GA during TURBT in high risk situations. There is a learning curve for the successful administration of ONB.

**OP 24 - Importance of adrenal venous sampling on management in patients with primary aldosteronism.**

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**Introduction**

Primary aldosteronism (PA) is a common cause of secondary hypertension. Unilateral Aldosterone Producing Adenoma (APA) accounts for 30-40% of the PA burden. Treatment options in APA are surgical excision or targeted pharmacotherapy in non-surgical candidates. A contrast enhanced CT (CECT) abdomen is routinely used in our setting to diagnose an APA. Adrenal Venous Sampling (AVS) is another modality to detect APA. A prospective study was conducted to detect the importance of AVS prior to adrenalectomy.

**Methodology**

Data was collected regarding CECT abdomen and AVS in all patients who underwent adrenalectomy for APA in North Colombo Teaching Hospital during 2018 - 2019. The diagnoses were confirmed with histology.

**Results**

8 patients underwent adrenalectomy, 1 male and 7 females. Mean age is 47.6 years. Seven patients underwent laparoscopic adrenalectomy and the other underwent open surgery. All underwent CECT abdomen (100%). Only 6 (75%) underwent pre-operative AVS. Histological confirmation showed that all patients had adrenocortical adenoma.

All 6 AVS were compatible with histology giving 100% accuracy in diagnosing APA. AVS had a 100% accuracy in lateralizing the lesion. Only 5 out of 8 CECT reports correctly diagnosed site specified APA (61.5%) while the others showed site compatible indeterminate lesion (12.5%), bilateral adrenal hyperplasia (12.5%). One CECT didn't show any abnormality.

**Discussion and conclusion**

CECT imaging alone is not a reliable method to diagnose APA according to these data. AVS as an adjunct to imaging would help decision making in surgery for PA.

## **OP 06 - A clinical comparative study on diagnostic efficiency of different scoring systems in acute appendicitis**

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### **Introduction**

Acute appendicitis remains as one of the most common surgical entity requiring early intervention. Hence various scoring systems are designed to simplify the process of diagnosis. The current study aims to compare the diagnostic efficiency of Alvarado score, Appendicitis inflammatory response score and Adult appendicitis score in acute appendicitis.

### **Methodology**

This prospective study selected consecutive adult patients who presented with suspicion of acute appendicitis over one-year period. Each scoring was calculated based on the necessary variables and the scores of surgically treated patients were correlated with histopathological findings. The diagnostic performance of the three scores was compared.

### **Results**

Of 300 patients (Mean age 31.5±12.2 years, with male predominance 56.3%) 126(42%) underwent appendectomy, while the rest were followed non operatively. Among surgically treated patients 95(75.4%) had histologically proven appendicitis. The area under the Receiver operating characteristic curve of Appendicitis inflammatory response score 0.848 (95% CI 0.771 - 0.926) was significantly larger than that of Adult appendicitis score 0.780 (95% CI 0.685 – 0.874) and Alvarado score 0.709 (95% CI 0.595 – 0.823) ( $p < 0.001$ ). When analyzing the high risk groups, higher specificity, positive likelihood ratio and diagnostic odds ratio were observed in Appendicitis inflammatory response score (97%, 10.86, 15.7 respectively) than Adult appendicitis score (94%, 7.71, 13.5 respectively) and Alvarado score (91%, 2.1, 2.35 respectively).

### **Discussion and conclusion**

Appendicitis inflammatory response score has a better statistical discrimination for patients with acute appendicitis than other two scores. This makes it as a good decision support tool while reducing unnecessary negative appendectomies.

## **OP 08 - The role of routine flexible sigmoidoscopy in patients presenting with fistula-in-ano: an observational study**

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### **Introduction**

Flexible sigmoidoscopy is useful to look for an underlying aetiology in fistula-in ano. This study was aimed to assess the yield of routine flexible sigmoidoscopy in patients presenting with fistula in ano.

### **Methodology**

A retrospective analysis of 159 consecutive patients with fistula-in-ano who underwent routine flexible sigmoidoscopy at the Professorial Surgical Unit, National Hospital of Sri Lanka, was performed. Sigmoidoscopy findings were recorded on a standard uniform format using a computer database. Those with a known aetiology were excluded. Results were expressed using frequencies and percentages.

### **Results**

A total of 159 patients were eligible to be included in the analysis. The median age was 39 (range:14-74) years and the majority ( $n=128, 80.5%$ ) were males. Forty-nine patients (30.8%) presented with a recurrent fistula-in-ano. On flexible sigmoidoscopy, Internal opening of the fistula was seen in only 23 patients (14.4%). Furthermore, incidental findings of haemorrhoids ( $n=5, 3.1%$ ) and polyps ( $n=7, 4.4%$ ) were found. One patient (0.6%) had a healed anal fissure, 5 patients (3.1%) had inflamed mucosa and 2 patients (1.3%) had ulcers. Only two patients with inflamed mucosa were diagnosed to have Crohn's disease on histology. They presented with complex recurrent fistulae and had other associated symptoms.

### **Conclusion**

The majority of the flexible sigmoidoscopies were normal and most of the findings were incidental except for two patients with evidence of Crohn's disease. However, they had recurrent complex fistulae and other associated symptoms. Therefore, flexible sigmoidoscopy may be reserved for selected group of patients with symptoms of an underlying aetiology.

Disclosure: Presented-at-ELSA-sessions

# POSTER PRESENTATIONS

## **PP 1 - Acquired tracheo-esophageal fistula in children: our clinical experience in diagnosis and management**

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### **Introduction**

To discuss various clinical presentations, diagnosis, and management of acquired TEF in children admitted to our institute in the last 3 years.

### **Methodology**

Between 2015-2018, 4 patients with acquired TEF were admitted in our institute. We discuss the clinical presentation and the management of these cases.

### **Results**

4 cases (three girls and 1 boy) with a median age of 59 months (range-9-204 months) were included. The presenting symptoms were recurrent coughing on taking feeds (n = 2), persistent vomiting (n=2) and feeding difficulty (n=1). The aetiologies were disc battery ingestion (n = 2), Organophosphorus ingestion and tracheostomy (n = 1) and postoperative complication of Bronchogenic cyst excision(n=1).

Initial management included NG feeds(n=2), Feeding Gastrostomy(n=1) and Feeding Jejunostomy(n=1). Bronchoscopic TEF obliteration was attempted in one patient with fibrin glue but it was not successful.

Diagnosis of TEF was made using the combination of UGI Study, esophagoscopy and CECT. The patients were variously managed: primary repair of TEF (n=3), 2 by the cervical approach and 1 by thoracotomy and 1 retrosternal Gastric pull-up.

### **Conclusion**

Acquired TEF is rare in the pediatric population with diverse etiology and clinical presentations. We discuss the management algorithm and the rationale that we utilized in the management of these cases. We also discuss the challenges that we faced and the routes we took to overcome the same. The study of these cases could provide coherence to the diverse approaches that may be possible in such difficult cases.

## **PP 2 – Prediction of mortality and morbidity in patients with secondary peritonitis using POMPP scoring**

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Swami Rama Himalayan University, Dehradun, India

### **Introduction**

POMPP (Practical scoring system of mortality in patients with perforated peptic ulcer) is a very simple and appropriate scoring system for clinical practice that may allow surgeons to perform rapid analysis and help in predicting mortality rates in patients with its construction based on objective data.

### **Methodology**

The study of observational design was conducted on 138 patients admitted as case of perforation peritonitis in Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, India over a period of 12 months. The parameters under evaluation for each patient under the POMPP scoring were Age (> 65 yrs), Serum Albumin (< 1.5gm/dl) and Blood Urea Nitrogen (> 45 mg/dl) and a score of 1 was awarded for each parameter.

### **Results**

Patients with score 0 were 86 (62.3%), 1 were 42 (30.4%), 2 were 9 (6.5%) and 3 was 1 (0.7%). Study of mortality associated with each score revealed there was 3.5% mortality with score 0, 16.7% with score 1, 44.4% with score 2, 100% with score 3 thus indicating that the most grave prognosis lies with patients who present with a POMPP score of 3. This observation of increasing POMPP score with relation to mortality was deemed statistically significant.

### **Conclusion**

It has been observed to be a very simple and appropriate scoring system for clinical practice which may allow surgeon to perform a rapid analysis of the patient's condition and may help in predicting morbidity and mortality rates in all types of GI perforations.

### **PP 3 – A prospective study on aetiology and outcome of haemospermia from a urology unit of Sri Lanka**

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A M Abeygunasekara

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#### **Introduction**

Haemospermia is an alarming symptom for ordinary members of public. The worry become more as it is described as a warning sign of a prostate cancer in the media. Aim of the study was to identify the aetiological factors and outcome of haemospermia in a cohort of patients.

#### **Methodology**

All patients with newly diagnosed haemospermia treated at the urology unit of Colombo South Teaching Hospital over a period of 5 years (2013 - 2018) constituted the study sample. Data related to demographics, symptomatology, clinical findings, investigations, treatment given and outcome during follow-up were recorded prospectively.

#### **Results**

There were 94 men with haemospermia who sought treatment during the study period. Mean age was 43.7 years (Range: 23 – 67, median= 41). Twenty-seven (29%) patients had clinical evidence of prostatitis and/ or a positive seminal fluid culture. One patient each had prostate carcinoma, prostatic cyst, severe hypertension, sclerotherapy for haemorrhoids, post-chemotherapy and post-epididymectomy. The patient who had high blood pressure (220/150 mmHg) was found to have mesangio-proliferative glomerulonephritis. In 61 (65%) patients, there was no identifiable cause.

#### **Conclusion**

The majority of patients with haemospermia are aged below 45 years and have a benign aetiology. As haemospermia is self-limiting in most instances, extensive investigations are unnecessary. The advanced and invasive tests should be confined to those with abnormal clinical findings and for those with persistent or recurrent haemospermia.

### **PP 4 – TEP vs TAPP: Groin hernia diagnostic and treatment challenges - a case report and literature review**

**Dr. Mahaveer Singh Rodha**, Dr Naveen Sharma,  
**India**

#### **Introduction**

Diagnosis of Inguinal hernia is based on symptomatology and examination. Rare occult groin hernia is often very difficult to diagnose. However, a history of pain is very important tool to diagnose the occult groin hernia. We present a case where laparoscopy proved invaluable for diagnosis of occult groin

hernias.

#### **Methodology**

A 56-year male presented in SOPD with C/O dull ache in groin, root of penis area. Patient had undergone open hernioplasty 10 years back. O/E Right sided cough impulse was present. Rest examination were normal. Due to additional symptoms, patient was planned TAPP hernioplasty. On laparoscopy bilateral indirect, direct, inguinal, femoral and left supravalvular hernia were present. After adequate preperitoneal dissection, bilateral 15x12 cm prolene mesh was placed.

#### **Discussion and conclusion**

These rare hernias are mostly diagnosed either on clinical suspicion or when they present with complications. These hernias are mostly undetectable in open hernia repair. An undiagnosed/unrepaired hernia may present with persistent pain after successful open repair. Laparoscopic management of inguinal hernia has added advantage of diagnosis the occult hernias which may have been missed. These occult hernia can be treated in the same sitting. Till now only few case reports of multiple hernia maximum 6 hernias in a patient are reported we believe that this case with 7 concurrent groin hernias is first in literature. TAPP have advantages over TEP in diagnosis of multiple groin hernia because of better visualisation of groin anatomy.

### **PP 5 - Hirschsprung's disease: from stoma to scar less surgery. Experiences over 3 decades**

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#### **Introduction**

The basic principle of management of Hirschsprung's disease (HD) is to remove the aganglionic bowel and reconstruct the intestinal tract by bringing the normally innervated bowel down to the anus while preserving normal sphincter function.

#### **Methodology**

We analyzed our data over the last 30 years and 1808 patients were operated by various operations for HD between 1988 and 2018.

#### **Results**

Primarily the patients underwent Duhamel's and modified Duhamel's procedures. Single staged trans anal endorectal pull through (TEPT) was started in 2002 in selected patients. Approximately 15% cases are selected for TEPT using strict inclusion criteria which includes decompressing system, with

relatively low level of disease, no significant enterocolitis and good general condition. A frozen section facility and an experienced pathologist is mandatory for this procedure

Out of our TEPT patients 95.1 % have a good QOL and 1.6% and 3.2 % have a fair and poor score in the QOL.

### **Conclusion**

Most procedures for HD have a good outcome if performed meticulously. Most commonly done procedure in our series was modified Duhamel's procedure. TEPT is a good procedure in selected patients of HD with good results and long-term quality of life scores.

### **PP 6 - Inter-hospital transfer of trauma patients in Sri Lanka: a prospective descriptive study**

**RD Jayatilaka, M Bandara**

**National Hospital of Sri Lanka**

#### **Introduction**

Inter-hospital transfer of patients is known to increase morbidity and mortality. There are no guidelines regarding transfer of trauma patients in Sri Lanka. This study was conducted to evaluate the inter-hospital transfer process of trauma patients in Sri Lanka.

#### **Methodology**

A prospective descriptive study of all consecutive patients transferred to the Accident service of National Hospital of Sri Lanka was conducted from 1st to 31st of October 2018. On arrival patients were assessed for clinical status and data communicated to the trauma centre from the referring hospitals were collected from transfer records.

#### **Results**

Of the 724 patients studied, 79.5% were male. Mean age was 46.8 years. Most injuries resulted from road traffic accidents 318(43.9%), falls 186(25.6%) and assaults 116(16%). In the transfer records, date of injury was documented in 74.86% of patients, time of injury in 58% and mechanism of injury in 52.2%. Pulse rate was recorded in 91.7% patients, blood pressure in 82.8%, respiratory rate in 19.8%, Glasgow Coma Score in 80.1% and pupil size and reactivity in 35.9%. 18.7% of transferred patients were intubated. 30.9% had cervical immobilization. Supplemental oxygen was given to 41.9%. Intravenous cannulae were present in 70.9% and urethral catheters in 20.99% patients. Only 23.4% were accompanied by a medical officer.

#### **Conclusion**

This study has identified problems pertaining to transferred patients, such as poor documentation of clinical parameters

and non adherence to ATLS protocol. There is urgent need for introduction of a standard protocol for the inter-hospital transfer of trauma patients in Sri Lanka.

### **PP 7 - Knowledge and use of WHO surgical safety checklist among Sri Lankan surgical trainees**

**RD Jayatilaka**

**National Hospital of Sri Lanka**

#### **Introduction**

The WHO surgical safety checklist is a universal tool which has been shown to reduce surgical morbidity and mortality and improve patient safety. This study examined the knowledge and use of the WHO Surgical Safety Checklist among Sri Lankan surgical trainees.

#### **Methodology**

A survey was conducted among the trainees in surgery on trainees day in October 2018 using a self administered questionnaire assessing the knowledge and use of WHO Surgical Safety Checklist.

#### **Results**

150 questionnaires were distributed and 122 responded (81.33%). 112 (91.8%) were males. Mean age was 38.7 years. 13.9% reported the experience of wrong site or wrong patient surgery.

All the respondents were aware of the existence of the checklist. 83.6% reported that it should be routinely applied to all surgeries. 93.4%, 89.3% and 78.6% knew that it should be applied before induction of anesthesia, before skin incision and before sending the patient from theatre respectively.

In practice only 81.9%, 70.4% and 47.5% applied the checklist before induction of anesthesia, before skin incision and before sending the patient from theatre respectively. 92.6% reported that the checklist is only partially completed. 84.4% of the trainees have never received formal training on how to use the checklist.

#### **Conclusion**

Most errors in the surgical environment are avoidable through the use of the WHO Surgical Safety Checklist. Existing gaps in knowledge and use of it among surgical trainees can jeopardize effective implementation of it. Efforts should aim to achieve universal awareness and complete knowledge on the WHO checklist among surgical trainees.

**PP 8 - Comparison of patient centered outcomes and perioperative factors of laparoscopic total extraperitoneal Inguinal hernia repair Vs open inguinal hernia repair**

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**NHSL, Sri Lanka**

**Introduction**

Inguinal hernia repair is one of the commonest routine surgical procedures which can be performed open or laparoscopically. Total Extraperitoneal (TEP) inguinal hernia repair is a popular laparoscopic inguinal hernia repair technique. Aim of this study is to compare the perioperative factors, complications and patient centered outcomes of laparoscopic TEP repair with open inguinal hernia repair in a single unit of a tertiary care hospital in Sri Lanka.

**Methodology**

105 male patients undergoing inguinal hernia repair (57-laparoscopic TEP, 48-open) from 1/4/17 to 31/3/18 were reviewed prospectively with regard to operative time, complications and patient centered outcomes. Patients >18yrs, with unilateral inguinal hernias were included in this study. Patients with recurrent hernia, severe cardiopulmonary disease or coagulopathy were excluded. Data was analyzed using SPSS data analytical software.

**Results**

Demographic data of two groups were matched with regard to age. Patients undergoing laparoscopic inguinal hernia repair experienced significantly less post-operative pain ( $P<0.05$ ) and return to work early ( $P<0.05$ ) with less post-operative complications including seroma (6% vs 21%), hematoma (5% vs 19%), hemi-scrotal swelling (4% vs 7%) and wound infections (4% vs 6%). There was no significant difference in hospitalized period ( $P=0.071$ ), return to routine activities of daily living (0.238) or intraoperative blood loss ( $P=.092$ ) There was a significant prolongation of operative time in laparoscopic group ( $P<0.05$ ).

**Conclusion**

Though Laparoscopic TEP inguinal hernia repair is associated with prolongation of operative time, it is associated with better patient centered outcomes and less post-operative complications and allows the patient to return to work early.

**PP 9 - A study on abdominal aortic dimensions: a computed tomography based study**

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**Anuradhapura, Sri Lanka**

**Introduction**

Aortic diameter is known to vary with site, age, gender and race. This study assesses the aortic dimensions in patients undergoing abdominal Computed Tomography (CT) at the Teaching hospital Anuradhapura (THA).

**Methodology**

This is a cross sectional descriptive study done at THA. Patients undergoing contrast enhanced CT for non-aorta related illness were included. Patients age, gender, aortic diameter (1cm above coeliac axis – Supra-coeliac / SC and just inferior to the renal arteries – IR) were collected. Incomplete data, non-clear images were excluded.

**Results**

99 patients were included with 54.4% males. Mean age was 57.9 years (30-88). Mean SC and IR in all subjects were 20.3 mm (16.5 – 27.0) and 15.4mm (13.6 - 19.3). SC of males and females were 21.3 mm / 18.8mm and IR were 16.5 mm and 13.9 mm and both were statistically significant ( $p= 00001$ ). Diameter increase with age i.e. in males SC in 30 -54 years and 55 – 80 group were 19.7mm and 21.6mm this difference was significant ( $p=0.0236$ ). IR was 16.0 mm/ 16.6mm but was not significant ( $p= 0.2966$ ). Mean IR of western (Framingham Heart Study) and Sri Lankan males were 18.7mm and 16.5mm and this difference is significant ( $p=0.001$ )

**Conclusion**

This study shows that IR diameter of our males is significantly smaller than western population ( $p=0.001$ ). Females have significantly smaller aorta. Therefore the aortic aneurysm definition and the threshold for surgery have to be further evaluated and redefined in our population.

**PP 10 - Study on branching variations of abdominal aorta: a computed tomography based study**

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**Anuradhapura, Sri Lanka**

**Introduction**

The abdominal aorta (AA) begins at the aortic hiatus (at 12th thoracic vertebra (T12)) and ends at fourth lumbar vertebra (L4). The main branches of the AA are Coeliac Axis (CA), Superior Mesenteric Artery (SMA), Renal Arteries (RA) and

Inferior Mesenteric Artery (IMA). Variations occur in branching pattern and in the level of origin.

### **Methodology**

This is a cross sectional, descriptive Computed Tomographic imaging based study done at the Teaching Hospital Anuradhapura. Patients' demography, levels of origin, aortic division level and branching variations assessed. Incomplete records, inadequate images were excluded. All images were analysed by a single individual.

### **Results**

104 patients were included. 54.2% were males. Mean age was 58.0 years (30 -88). The levels of origin were as follows, CA at T12 in 70 (68%). SMA at first lumbar level (L1) in 93 (89.4%). RA at L1 in 66%. IMA at 3rd lumbar level (L3) in 89.5%. Aorta divided at L4 in 83.6%. Variations in CA and SMA were noticed in three (2.9%) including Coelio Mesenteric Trunk, Splenic Artery / Left Gastric Artery directly arising from aorta.

### **Conclusion**

Visceral branches of AA develop from Omphalo-mesenteric arteries and ventral anastomosis and regression pattern results in variations. In this study SMA had most consistent level of origin (at L1 in 89.4%) and RA varied most (only 66% at L1). Variations of CA and SMA occurred in 2.9%. Awareness of these is important to avoid complications.

### **PP 11 - Revascularisation of marginally viable limbs: a long term follow up study**

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**Vascular And Transplant Unit Teaching Hospital Anuradhapura, Sri Lanka**

#### **Introduction**

Following acute limb ischemia (ALI) of leg if more than 2/4 compartments are non-viable reperfusion was not attempted because of reperfusion effects. This study reports long term follow up of such patients who underwent revascularisation at the Teaching Hospital Anuradhapura.

#### **Methodology**

This is a cross-sectional descriptive study. Limb viability was confirmed by fasciotomy. Patients lost to follow up were excluded. Patients' demography, cause and duration of ALI, viability of limb at presentation, present activity status and satisfaction were assessed.

#### **Results**

Three were included with two males. Two had arterial injury and one had arterial embolisation. Two had 3 compartments

(marginally Viable – MV) and one had 4 compartments (dead limb) non-viable. Mean age was 44.3 years (25 – 69). Two underwent graft repair and one embolectomy. Mean ischaemic time was 14 hours (12 -18). Embolectomy patient developed acute kidney injury needing dialysis and recovered. At mean follow up of 33.8 months (11.2 -47.2) all were able to walk and was happy to have a viable limb, but had reduced muscle power (grade 4) and atrophy of leg and numbness in foot.

### **Conclusion**

ALI results in high amputation rate. Earlier series(1) showed that reperfusion of MV/dead limbs in young, fit patients with close post-operative monitoring can be done. This series shows that the long term outcome of such legs is acceptable.

### **Reference**

1. Arudchelvam, J. (2017). Outcome after revascularisation of marginally viable limbs and dead limbs following lower limb arterial injuries. Ceylon Medical Journal, 62(3).

### **PP 12 - Aortic dissection presenting as paraplegia – a missed diagnosis**

**Renuka Mahanama, Vasantha Padmaperuma**

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#### **Introduction**

A case of painless aortic dissection(AD) presenting as sudden-onset paraplegia.

History: 42yr old airman wore tight belt with hanging sword during parade training. Suddenly developed numbness in both soles, moving up involving calves, thighs and buttocks over ~30minutes with pain and weakness waist downwards. He was admitted to regional hospital, then National Hospital (NHSL) with paraplegia. 5 days later he improved neurologically so discharged without a diagnosis, to local airforce hospital. 13 days after onset presented to surgical clinic Guwanpura with Claudication distance of ~40feet. Suspecting vascular aetiology, pulses were checked for the first time. This revealed absent Dorsalis Pedis, Posterior tibial, Popliteal, Femoral pulses bilaterally. Clinically Saddle embolus was suspected. Duplex scan revealed partial obstruction of abdominal aorta at bifurcation.

We contacted oncall vascular team immediately and re-transferred to NHSL. CT angiogram revealed Infra-renal AD down to bifurcation with a clot. Treatment options were (1) Open surgery (2) Aortic stenting.

Suitable stent was not available in Sri Lanka. Cost of importing and inserting in cath lab was ~2.5million. As this was too

expensive, he underwent open surgery with resection of dissecting flap and aortic repair with a PTFE(Poly Tetra Fluoro Ethilene) graft.

Post op was very stormy with large retroperitoneal haematoma due to undetected Inferior Vena Cava(IVC) tear which led to 3laparotomies, 5units blood transfusion, abdominal compartment syndrome and a post-op pneumonia. Fortunately he recovered.

### **Conclusion**

AD is potentially fatal. Doctor delay of 13days was due to pulses not being checked at 3hospitals. AD should be considered in acute-onset paraplegia (painful or painless) with pulseless femoral arteries bilaterally.

### **PP 13 - Descriptive study on colorectal malignancy identified in colonoscopic examination, in a single surgical unit DGH Chilaw.**

**RCA Arunan, VSD Rodrigo**

**Surgical unit DGH chilaw, Sri Lanka**

### **Introduction**

PR bleeding is a common symptoms among patients who attend to surgical wards and clinic and it is a more common symptoms of colorectal malignancy, especially in elderly population. This study was conducted among patients who underwent colonoscopic examination for lower gastro intestinal symptoms.

### **Methodology**

Retrospectively studied on 39 patients who had positive colonoscopic findings for malignancy over the last 5 years duration. Among those patients age distribution, symptoms and site of lesions and their correlations were analyzed.

### **Results**

In this study mean age is 65 year, with male: female ratio of 1: 1.6. PR bleeding is the most common symptom (61.5%), 66.7% of them found to have rectal malignancy.

### **Discussion and conclusion**

Colorectal malignancy is mostly affects patients over 60 years, with slight female predominance. Left side colonic and rectal malignancies are commonly presented with PRbleeding and altered bowel habits, whilst right side colonic malignancies commonly presented with anemia.

### **PP 14 - A prospective observational study on risk of developing cannula site infections in inward surgical patients**

**HKS Niroshan, VP Gamage**

**NHSL, Sri Lanka.**

### **Introduction**

Peripheral Intravenous (IV) cannulas are commonly inserted in inward surgical patients for the purpose of administration of drugs, IV fluids and blood products. These peripheral IV cannulas can cause complications leading to adverse patient outcomes. The aim of this study is to identify the incidence and the related factors for IV cannula site infections among inward patients of a single surgical unit in a tertiary care hospital in Sri Lanka.

### **Methodology**

100 consecutive patients undergoing peripheral IV cannulation from 1/10/2017 to 31/12/2017 in a single surgical unit at NHSL were followed up and assessed the cannula site daily using the Visual Infusion Phlebitis Score (VIPS). The incidence and the associations of phlebitis were analyzed using SPSS data analytical software.

### **Results**

Total of 100 patients (52 males and 48 females) were included in the study and their demographic data were well matched. 33 patients (18 males, 15 females) developed features of phlebitis (33%). The incidence of phlebitis is higher among the patients who had the cannula in situ beyond 5 days ( $P<0.05$ ) and who had evidence of ongoing infection ( $P<0.05$ ). There is no statistically significant correlation between the incidence of phlebitis and the cannula gauge ( $P=0.23$ ) or the site ( $P=0.073$ ).

### **Conclusion**

Incidence of phlebitis of peripheral IV cannula sites increases when the duration of cannula in situ is more than 5 days and when the patient is already having an underlying infection but it is not related to the cannula site or size.

### **PP 15 - Spectrum of traumatic hand injuries presenting to a base hospital In Sri Lanka**

**RD Jayatilaka, P Halpage**

**Base Hospital Panadura, Sri Lanka**

### **Introduction**

Hand injuries constitute a significant number of trauma patients in under developed countries. Epidemiological studies of hand injuries from Sri Lanka are scarce. The objective of this study was to identify the spectrum of traumatic hand injuries presenting to a base hospital.

## Methodology

This descriptive study was conducted in the surgical unit of Base hospital, Panadura. All the patients presented with traumatic hand injuries from 1st to 31st March 2019, were included. Data were collected using an interviewer administered questionnaire.

## Results

A total of 68 patients were included. 58(85.2%) were male and 10(14.7%) were female. The mean age was 40.5 years. Injuries involved only the dominant hand in 63.2%, only the non dominant hand in 33.8% and both hands in 2.9% patients. The commonest etiology of hand injuries was road traffic accidents with 36.7% patients. Other causes were occupational injuries 29.4%, domestic accidents 13.2%, assaults 8.8%, burns 7.3% and falls 4.41%.

Injuries observed included simple lacerations(25%), superficial cuts (involving skin and subcutaneous tissues) (22%), fractures(7.3%), dislocations(4.4%),prick injuries(7.3%), burns(7.3%), bite wounds(4.41%), degloving injuries(2.9%) and ring constrictions(1.4%).

Out of all patients 9(13.2%) had tendon injuries. 8.82% had extensor tendon involvement, 2.94% had flexor tendon involvement and 1.47% had both flexor and extensor tendon involvement.

One and 2 patients had total and partial amputation of a digit respectively.

## Conclusion

Hand trauma accounts for a significant number of admissions to a surgical unit in a base hospital and those hospitals must be geared to manage a wide spectrum of hand injuries.

### PP 16 - Arteriovenous fistula for haemodialysis in patients with CKDu: a retrospective study at a tertiary care center

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Vascular and Transplant Unit, Teaching Hospital, Anuradhapura, Sri Lanka

## Introduction

Chronic kidney disease of unknown etiology (CKDu) is significant cause of chronic kidney disease (CKD) among farming communities of Sri Lanka and the demand for on haemodialysis (HD) is rising. Autologous Arterio Venous Fistula (AVF) provides the best access for HD. The aim of this study was to describe the aspects of AVF created at the Vascular and Transplant unit, Teaching Hospital, Anuradhapura (THA).

## Methodology

A cross-sectional descriptive study conducted using an interviewer administered questionnaire among patients undergoing HD through AVF at THA. Data on patient characteristics, timing of referral for AVF creation, AVF site, time for first cannulation and complications of AVF were collected.

## Results

86 patients were included with 74 males (86%). Mean age was 51years (23 - 67). Only 10 % of patients had DM. mean interval from diagnosis to referral was 27 months. Commonest functioning AVF was brachio – cephalic (55.8%). 33 (38%) had failure of first AVF. The commonest failed site was radio – cephalic (81%). Mean time for first cannulation was 25 weeks (3 – 135). Non aneurysmal dilatation was the commonest concern (22%) of patients. thrombosis was the commonest reason (66.6%) for failure and haematoma, and infection were other factors causing failures.

## Discussion and Conclusion

This study shows that the native AVF creation has a success rate of 67%. And early referral can minimize the need for central line insertion and related complications.

### PP 17 - Inter-hospital transfer of trauma patients in Sri Lanka: a prospective descriptive study

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National Hospital of Sri Lanka

## Introduction

Inter-hospital transfer of patients is known to increase morbidity and mortality. There are no guidelines regarding transfer of trauma patients in Sri Lanka. This study was conducted to evaluate the inter-hospital transfer process of trauma patients in Sri Lanka.

## Methodology

A prospective descriptive study of all consecutive patients transferred to the Accident service of National Hospital of Sri Lanka was conducted from 1st to 31st of October 2018. On arrival patients were assessed for clinical status and data communicated to the trauma centre from the referring hospitals were collected from transfer records.

## Results

Of the 724 patients studied, 79.5% were male. Mean age was 46.8 years. Most injuries resulted from road traffic accidents 318(43.9%), falls 186(25.6%) and assaults 116(16%). In the transfer records, date of injury was documented in 74.86% of patients, time of injury in 58% and mechanism of injury in

52.2%. Pulse rate was recorded in 91.7% patients, blood pressure in 82.8%, respiratory rate in 19.8%, Glasgow Coma Score in 80.1% and pupil size and reactivity in 35.9%. 18.7% of transferred patients were intubated. 30.9% had cervical immobilization. Supplemental oxygen was given to 41.9%. Intravenous cannulae were present in 70.9% and urethral catheters in 20.99% patients. Only 23.4% were accompanied by a medical officer.

### **Conclusion**

This study has identified problems pertaining to transferred patients, such as poor documentation of clinical parameters and non adherence to ATLS protocol. There is urgent need for introduction of a standard protocol for the inter-hospital transfer of trauma patients in Sri Lanka.

### **PP 18 - Demographical and pathological characteristics of prostate cancer treated in Teaching Hospital, Jaffna**

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**Surgical ward, teaching hospital, Jaffna, Sri Lanka**

### **Introduction**

Prostate cancer is the most common cancer over 50 years of age and fifth leading cause of cancer deaths among men. Different patients show distinct differences in the clinicopathological characteristics of the tumor. This study aims to describe the demographical and pathological characteristics of the prostate cancer treated at the teaching hospital, Jaffna.

### **Methodology**

It was a retrospective study of 81 patients (with confirmed prostate cancer by histology), presented at teaching hospital, Jaffna, within the period of January 2016 to December 2018. The data obtained were analyzed using SPSS.

### **Results**

The study included 81 patients within the age range of 50-91; the mean age at the time of diagnosis was 70.37. Most of them showed the Lower urinary tract symptoms (76.5%), and followed by back pain (8.6%) and AUR (8.6%). According to the DRE, the patients with T3 and T4 stage were 11(13.6%) and 18(22.2%) respectively. The patients who had the PSA value of more than 100ng/ml were 21 (25.9%) and less than 10ng/ml were 10(12.3%). Adenocarcinoma was the only histological form identified. The patients with Gleason score more than 7 were 40(49.3%); among them 17(42.5%) had the DRE finding of T3 and T4 and 19(47.5%) had the PSA value of more than 100.

### **Discussion and Conclusion**

It was concluded that majority of the prostate cancer was presented with Lower urinary tract symptoms. When

presented with high PSA value or T3/T4 stage on DRE, it favors poorly differentiated prostate cancer.

### **PP 19 - Molecular sub types of breast cancer and its correlation with clinicopathological characteristics in Polonnaruwa women**

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**Sri Lanka**

### **Introduction**

Breast carcinoma is a heterogeneous disease which is rich in diversity. Aim of this study is to classify breast carcinoma according to molecular subtypes and to investigate its association with clinicopathological characteristics.

### **Methodology**

The clinical and histopathological data of 102 patients, surgically treated for breast cancer between 2017-2019 in District General Hospital Polonnaruwa, were retrospectively analyzed and divided into five molecular subtypes by means of immunohistochemical markers. Central tendency and proportions were calculated for quantitative and qualitative variables respectively. The Chi-square test was conducted to assess the relationship between the breast cancer subtypes and the main clinicopathological characteristics and the significance level was set as  $p < 0.05$ .

### **Results**

Of 102 breast cancers 36(35.5%) were Luminal B with Her-2 negative subtype, 20(19.6%) Her-2 enriched, 20(19.6%) Triple negative, 16(15.7%) Luminal B with Her-2 positive and 10(9.8%) Luminal A. Mean age was 53.4 +13.47years. Invasive ductal carcinoma was the most common histological type (86.3%) followed by invasive lobular (9.8%) and others (3.9%). The upper outer quadrant (33.3%) was the common tumor location followed by lower outer quadrant (30.4%). Mean tumor size was 3.28+1.61cm. Positive lymph node status was observed in 62(60.8%) patients. 45(44.1%) patients had Grade I, 39(38.2%) Grade II and 18(17.6%) Grade III. Analysis showed there were no statistical significance between subtypes and above clinicopathological characteristics ( $p > 0.05$ ).

### **Discussion and conclusion**

Among subtypes Luminal B with Her-2 negative has the highest frequency and there were no significant associations found between different molecular subtypes of breast cancer and clinicopathological characteristics in Polonnaruwa women.

## **PP 20 - The utility of colonoscopy after acute appendicitis in those over 40 years: a systematic review**

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Kavinda Nagodavithane, Sivasuriya Sivaganesh  
**National Hospital of Sri Lanka**

### **Introduction**

Acute appendicitis is uncommon in older persons. When it occurs in this age group, colonoscopy is often performed to exclude an underlying caecal malignancy. The evidence to support this practice in those over 40 years is sketchy, with no clear consensus or guidelines on care pathways. The objective of the study was to assess the utility of early colonoscopy in older(>40 years) patients with acute appendicitis.

### **Methodology**

Databases such as PubMed, Embase, Cochrane Library, Google Scholar, APAMED Central were searched and experimental and observational studies(n=10) that considered the association between colonic neoplasms and acute appendicitis and the place of colonoscopy in older (>40 years) patients were identified. The proportion of older patients with acute appendicitis who were detected to have a caecal or colonic malignancy was determined.

### **Results**

The mean age of the patients ranged from 56 -72 years with a male to female ratio of 1.67:1. The follow up period ranged from 12 to 53 months. The proportion of colonoscopies performed was variable. Colonic malignancies were detected in 2.05% of the overall group (range: 1.2-2.9%). There was a considerably higher risk of developing colonic cancer in older patients with acute appendicitis compared to the age matched general population.

### **Conclusion**

A considerable proportion (~ 2%) of patients over 40 years presenting with acute appendicitis were subsequently diagnosed with colorectal cancer. A routine elective colonoscopy may be offered to older patients after appendicectomy. However, further prospective analyses to study the clinical utility of routine colonoscopy in these patients are recommended.

## **PP 21- Detrusor muscle in the initial transurethral resection of bladder tumour specimen and recurrence rate at first check cystoscopy in non-muscle invasive bladder cancer based on surgeon experience**

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Department of Pathology, Faculty of Medicine, University of Colombo, Sri Lanka

### **Introduction**

The presence of detrusor muscle (DM) is an essential component in "complete" transurethral resection of bladder tumour (TURBT) specimen. This study analyses patients who were subjected to a "complete" first TURBT to determine the presence/absence of DM in the specimen.

### **Methodology**

A retrospective analysis was carried out of newly diagnosed non-muscle invasive bladder cancer (NMIBC) from 1-April-2007 to 31-March-2017 in a single urology unit at National Hospital of Sri Lanka. All TURBTs performed at initial diagnosis were analysed to determine the presence of DM in the specimen, the recurrence rate at first check cystoscopy at 3 months and the association with surgeon's experience.

### **Results**

During the 10-year study period, 181 patients were relevant to the study. Of 181 TURBT, 99 (54.7%) were done by Consultant Urological Surgeon (CUS) and 82 (45.3%) were performed by senior registrars (SR). The overall DM positivity rate was 59.7%(n=108/181), for CUS:58.3% (n=63/99) and SRs:41.7%(n=45/82)(p=0.232); for pTa tumours, CUS:46.5% vs. SRs:50% (p=0.751) and for pT1 tumours, CUS:76.8% vs. SRs:59.5% (p=0.067). Analysis of those who were followed up (145/181,80.2%) showed a positive recurrence at first check cystoscopy in 27.1% (23/85) and 30.0% (18/60) when DM was present and absent in the first TURBT specimen respectively (OR=0.87 (95%-CI:0.41-1.8, p=0.7).

### **Conclusion**

Clinically, DM positivity rate has prognostic significance only in the pT1 category of NMIBC. The positive DM rates for the CUS and SRs were 76.8% and 59.5% respectively. Urologists should strive to improve the positive DM rates in NMIBC without compromising patient safety.

## **PP 22 - Evaluation of quality of patient-oriented information on the internet on gastric cancer**

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### **Introduction**

Health information is readily available to the public through the internet. This study was aimed to evaluate the quality of articles on the internet providing information on gastric cancer to patients.

### **Methodology**

Internet search was conducted using the keywords 'gastric' OR 'stomach' AND 'cancer' OR 'tumour' OR 'tumor' OR 'malignancy' on Google, Yahoo! and Bing. The first 50 sites on each search engine were evaluated for their readability by using the validated Flesch Reading Ease Score (FRES), the quality by DISCERN instrument and reliability and usability by LIDA tool.

### **Results**

Of the 1050 search results, 87 websites provided patient-oriented information on gastric cancer. The median DISCERN score was 47(range:19-75), median FRES score was 46.2(range:18.2-72.5) and median LIDA score was 76(range:53-94). Seven sites (8%) were affiliated to government organizations. Symptoms, investigations and risk factors were accurately mentioned in 85 (97.7%), 82 (94.3%) and 73 sites (83.9%) respectively. However, benefits of treatments, risks of no treatment and side effects of treatment were not mentioned in 66 (75.9%), 66 (75.9%) and 78 (89.7%) websites, respectively. There was a significant positive correlation between DISCERN and LIDA scores (Spearman's rho=0.614, p<0.001). Also, there was a positive correlation between FRES and DISCERN scores, however it was not statistically significant (Spearman's rho= 0.208, p=0.054).

### **Conclusion**

The quality and reliability of most websites were moderate, the usability was high and the readability was low. Steps must be taken to ensure high quality, peer reviewed, health-related information for patients.

Disclosure:Presented-at-ELSA-2018

## **PP23- The incidence and patterns of oral cancers in Sri Lanka from 2001-2010: analysis of national cancer registry data**

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### **Introduction**

The burden of oral cancers is very high in the South Asian countries and is the commonest cancer among males in the region. We conducted this study to examine trends in oral cancer incidence and histological patterns in Sri Lanka.

### **Methodology**

A retrospective cohort evaluation of newly diagnosed patients with oral cancer in Sri Lanka during 2001–2010 was performed using population based data published by the National Cancer Registry. Trends in incidence were analysed by age and gender using Joinpoint regression software.

### **Results**

A total of 13338 oral cancers (mean age=61.2 years, males=10114,75.8%) were analysed. Approximately 10.35% (n=1380) were reported as carcinoma, not otherwise specified. Of the remaining (n=11958), the majority (n=11303,94.5%) were squamous cell carcinoma (SCC). The commonest site is the tongue (34.2%) followed by cheek mucosa (28.1%) in males and cheek mucosa (38.5%) followed by tongue (23.4%) in females. The WHO age standardized incidence of oral cancer decreased from 7.5 per 100,000 in 2001 (95%-confidence interval[95%-CI]:7.08–7.94) to 6.9 per 100,000 in 2005 (95%-CI:6.5–7.3, p>0.05 for trend), with an estimated annual percentage change(EAPC) of -1.1(95%-CI:8.1–6.5) followed by a significantly increasing trend from 2005-2010 to an ASR of 10.4 in 2010(95%-CI:9.9–10.9), with an EAPC of 8.9(95%-CI:3.9-14.2). The proportional increase in incidence was greater for males although a similar pattern of increase was observed in females.

### **Conclusion**

The burden of oral cancers is considerably high with a rising incidence in Sri Lanka. This requires nationwide screening and preventive strategies to control the future cancer burden.

**PP 24 - The incidence and patterns of pharyngeal carcinoma in Sri Lanka from 2001-2010: analysis of national cancer registry data**

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Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

**Introduction**

Cancer of the pharynx is more prevalent in developing countries especially in areas of increased tobacco consumption. We conducted this study to examine trends in pharyngeal cancer incidence and histological patterns in Sri Lanka.

**Methodology**

A retrospective cohort evaluation of newly diagnosed patients with pharyngeal cancer in Sri Lanka during 2001–2010 was performed using population based data published by the National Cancer Registry. Trends in incidence were analysed by age and gender using Joinpoint regression software.

**Results**

A total of 3729 carcinoma of the pharynx (males=2925,78.4%, mean age=59.3 years) were analysed. The majority were squamous cell carcinoma (95.0%). The commonest site was the piriform sinus (47.6%) in males and hypopharynx (31.5%) in females. The WHO age-standardized rate (ASR) of pharyngeal cancer decreased from 1.98 per 100,000 in 2001 (95% confidence interval [95% CI]: 1.8-2.2) to 1.93 per 100,000 in 2004 (95% CI: 1.7-2.1) ( $p > 0.05$  for trend), with an estimated annual percentage change (EAPC) of -0.5 (95% CI -5.8–5.1) followed by a significantly increasing trend from 2004-2010 to an ASR of 2.54 in 2010 (95% CI: 2.3– 2.8), with an EAPC of 5.0 (95% CI 3.2-6.8). The proportional increase in incidence was greater for males although a similar pattern of increase was observed in females.

**Conclusion**

Overall, the incidence of pharyngeal cancer is increasing in Sri Lanka. Analysis of the risk factors and pathological characteristics would be necessary to identify the reason for the increasing incidence.

**PP 25- Quality assessment of the patient-oriented information on thyroid cancer over the internet**

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**Introduction**

The aim of the study was to assess the readability and quality of patient education websites about thyroid cancer.

**Methodology**

Search engines such as Yahoo!, Google and Bing were used for the search with their default settings using the keywords thyroid cancer, thyroid tumour, thyroid tumor, and thyroid malignancy for relevant websites. The first 50 websites obtained for each keyword and search engine were evaluated using validated Flesch Reading Ease Score (FRES), LIDA and DISCERN scores to assess readability, usability and reliability, and quality of information provided in these websites. Statistical analysis were done using non-parametric tests.

**Results**

The analysis included a total of 49 websites selected out of 600 websites obtained from the search engines. Health on the net foundation code of conduct (HON code) certification was obtained in 22(44.9%) web sites. The included websites had a median FRES score of 55.3 (range:25.3–85.3) and the LIDA reliability and usability scores were 22.0 (range 14–30) and 39.0 (range 28–50), respectively. The median DISCERN score was 48.0 (range:33–63). A total DISCERN score of 50% or less(low score) was found in 28.5%(n=14) of the websites. A significant association was found between LIDA usability and reliability scores and DISCERN score ( $p < 0.001, p = 0.001$ ).

**Conclusion**

The quality of the websites, readability and usability scores were moderate or low based on the criteria used. As the internet use by the public is ever increasing, implementing measures to ensure the quality information without a bias should be considered a priority.

## **PP 26 - Evaluation of fractures among motorcyclists admitted to NCTH Ragama**

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### **Introduction**

Motorcycle has become a quicker and more economical mode of transportation. Their numbers grow rapidly in highways of Sri Lanka. It carries a high risk of mortality and morbidity with compared to other vehicle in road traffic accidents. Fractures are commonly seen among those victims.

### **Methodology**

This study was conducted at NCTH Ragama orthopedics unit. 108 patients with fractures due to motorcycle accidents were evaluated during a six months' period from 1.9.2018. Patients who consented for the study were interviewed by a doctor using a questionnaire and data were collected and analyzed using SPSS software.

### **Results**

96(88.9%) were males and 12(11.1%) females. Mean age of the victims was 37.25. In 83.3%(90) of cases the rider was the victim and in 16.7%(18) cases the pillion rider. 13.3%(12) were without driving license. 18(16.7%) were under the influence of alcohol. 57(52.8%) of the accidents happened during 4pm to 10 pm. While 30(27.8%) during 10am to 4 pm. 66(61.1%) cases had crash bars in their bikes and only 15(13.9%) were wearing shoes. Most are due to fallen from bikes 36(33.3%).

Closed fractures were seen in 57(52.8%) cases and open fractures in 51(47.2%). Fracture tibia 24(22.2%) fibula 16(19.8%) femur 15(13.9%) metatarsals 15(13.9%) toe phalanx 16(19.8%) patella 5(4.6%) clavicle 14(15.1%) humerus 11(10.1%) radius 9(8.3%) ulnar 6(5.6%) metacarpals 6(5.5%) finger phalanx 6(5.6%) scapula 6(5.5%) ribs 6(5.6%) c spine 2(1.9%) pelvis 4(3.7%) fat embolism 2(1.9%).

### **Conclusion**

Most of these patients were productive people to the country, commonest fracture was the tibia and reason was fallen from bike. Significant numbers were under influence of alcohol.

Legislations regarding safety measures to the riders should be addressed.

## **PP 27- study on incident of DVT in femoral & pelvic fracture patients during the period of November 2018 to April 2019 at orthopaedic unit, Teaching hospital Batticaloa and need of thrombo prophylaxis in those patients.**

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### **Introduction**

Deep vein thrombosis (DVT) means a blood clot (thrombus) in the deep venous system of the leg. Deep vein thrombosis (DVT) of the lower extremities is a common complication in patients with trauma. Studies have proven in western countries incident of DVT incident occur following femur fracture more than Asian countries. In our unit we are not routinely giving thrombo prophylaxis and we didn't encounter any symptomatic DVT. So this study design to find whether our patient developing asymptomatic DVT or are we undetecting DVT.

### **Methodology**

This study is hospital based prospective study on incident of DVT in femoral & pelvic fracture patients during the period of November 2018 to April 2019 and need of thromboembolism prophylaxis in those patients. Every patients will be undergone duplex scan 48 hours before surgery and within 48 hours after surgery.

### **Results**

During this six month period total 242 patient underwent duplex scan. Mean age of the patients is 65.3 years. Male : female ratio 66.94% : 33.06%. Mean hospital stay is 7.4 days. Injury patterns were Road traffic accident 43.4%, accidental fall 53.7%, fallen from height 2.9%. Only two patient had DVT 0.83%.

### **Discussion & conclusion**

This study concludes no need DVT prophylaxis for uncomplicated femur and pelvic fracture patients at THB. Incident of DVT following fracture is much less than western country. Further study has to be done island which will need to find needfulness of thromboprophylaxis in Sri Lanka for femur and pelvic fracture patients.

**PP 28 - In ward dressing room centred specialist led wound follow up clinic. a model for efficient health economics?**

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V R Ganegoda, W K S R Kumara

**Base Hospital Udugama, Sri Lanka**

**Introduction**

Base Hospital Udugama is in an under privileged remote area in Galle district. Scarcity of human resources and space, led to start a wound clinic in ward setting, once per week, led by the surgical team.

Each wound debrided prior to dressings (Saline dressings, Komarika (Alovera), Commercially available dressings, Tubigrip and four layer compressions). The aim was to assess the outcome of this model.

**Methodology**

Clinic records were made on a specially designed wound data sheet and clinic book. Retrospectively analysed the records of all the patients registered from April 2016 to April 2017.

**Results**

Total of 40 patients (60% males). Mean age 62.5. 40% had comorbidities. Diabetes in 86.6%. Iron deficiency anemia 65%. Hypertension and Ischemic heart disease are other identified comorbidities.

Nearly half of patients (52.5%) had venous ulcers. Others were post cellulitic (25%), trophic (17.5%) and ischemic (5%).

Thirty Eight Percent underwent surgical interventions and one patient was referred to vascular unit at the tertiary care institution.

During follow up, 17.5% wounds healed, 29.5% achieved satisfactory reduction in wound size. 15% of patients defaulted.

**Conclusion**

Results demonstrate satisfactory wound healing and improvement rates with a 15% non compliance. This proves this set up can achieve good results with less burden to health

budget.

**PP 29- Outcome of inguinal hernioplasty using external oblique aponeurosis as live bio-mesh, a retrospective study**

**Dr. Arunkumar Chaubey, Dr. Upma Gupta**

**Surgeon In charge Krishna Surgical Center, India**

**Introduction**

In this retrospective study we included patients attended our center for Inguinal hernia repair over a period of over last 7 yrs from 2008-2015.

In search of cost effective well accepted treatment of very common surgical condition, irrespective of medical condition like Diabetes, older age, poor socioeconomic status we used external oblique aponeurotic aponeurosis on place any synthetic mesh to strengthen the post. wall of inguinal canal.

After complete pre operative work out & fitness for surgery anaesthesia decided either Spinal, local nerve block or rarely general anaesthesia part prepared & draped after dissecting layers over inguinal canal sparing the inguinal nerves cord lifted out gradual dissection of cremaster layer done hernial sac identified & from fundus to internal inguinal ring completely separated without damaging any important structures, we do herniotomy, if internal ring requires any care done, interrupted prolene 2-0 used to repair post. wall fascia transversalis to base of inguinal ligament then we strengthen the post wall by using external oblique aponeurosis in retro position of cord aponeurosis stitched with ant lip of inguinal ligament thus cord is exteriorized and superficial part closed with layer of scarpa fascia.

All patients recovered eventless. Some short & long term observation made like any scrotal swelling, neurological symptoms, discomfort on walking nothing happened instead of some earlier bulge in inguinal area which also subsided in due course of time.

No recurrence even after 7 yrs of follow up. External oblique aponeurosis is a good substitute of synthetic mesh.

**PP 30 - Human – wild elephant conflict: a six-month descriptive analysis of injury patterns in elephant attack victims**

**R V Paranamanna, I P K B Thilakarathna**

**S Parathan, K M M Kulasekara**

**Teaching Hospital Anuradhapura, Sri Lanka**

**Introduction**

Human – wild elephant conflict is an ongoing battle without a proper solution in the dry zones of Sri Lanka. This results in a

significant human as well as elephant morbidity and mortality. The purpose of this study is to characterize the injury patterns sustained by the victims of wild elephant attacks.

### **Methodology**

Injury patterns of the victims of wild elephant attacks admitted to Teaching Hospital Anuradhapura from 1st August 2018 to 31st January 2019 were analysed.

### **Results**

Total number of 14 patients studied. Of that 12(85.7%) were males. Age distribution ranged from 24 to 69 years with a mean age of 49.92 years. Seven patients (50%) sustained long bone fractures and 57.14% of them were compound fractures. Both upper and lower limb fractures accounted for 42.81% each. Two (14.28%) patients sustained pelvic injuries in the forms of fractures and symphysis pubis separation. Spinal injuries were noted in two (14.28%) patients. One patient (7.14%) had severe head injury with acute EDH and SAH requiring intubation and ventilation. Facial injuries were seen in 14.28% of patients. One patient required chest tube insertion for multiple rib fractures and underlying haemopneumothorax. An emergency laparotomy was performed on one patient for suspected bowel injury which turned out to be negative.

### **Discussion and conclusion**

Wild elephant attacks on humans carries a significant morbidity and potential mortality. Long term data on the island wide trauma burden with regard to this is scarce. Further studies on this and strategies to minimize human-elephant conflicts are essential.

### **PP 31- Outcome and early complications of ERCP in a single surgical unit: prospective study**

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**Professorial Surgical unit Teaching Hospital Jaffna, Sri Lanka**

### **Introduction**

Endoscopic retrograde cholangiopancreatography (ERCP) has been introduced as diagnostic and therapeutic procedure. As several less invasive imaging methods have developed to visualize the bile duct and pancreatic duct, ERCP has become mainly a therapeutic tool for pancreatobiliary disease. Aim of this study is to assess the outcomes and early complications of ERCP.

### **Methodology**

This is an ongoing prospective study that has been carried out in the Professorial Surgical Unit at the Teaching Hospital Jaffna since January 2017. 48 patients, who underwent ERCP

from January 2017 to April 2019, were included in this study.

### **Results**

Among the 48 patients 23 (47.9%) were males and 25 (52.1%) were females. Age of patients ranged from 23 to 85 years and mean age was 59.44. The indications for ERCP were cholelithiasis in 35(73%) patients, malignancy in 9(19%) patients and stricture in 4(8%) patients. 43 (89.5%) patients were successfully cannulated.

Common bile duct stone extracted in 33(76.7%) patients, stent inserted in 11(25.5%) patients and biopsy taken from 2(4.7%) patients. Post ERCP complications developed in 6 patients (12.7%), which include pancreatitis in 4(8.5%) patients and cholangitis in 2(4.2%) patients. There was no bowel perforation or major haemorrhage happen.

### **Discussion and conclusion**

ERCP is an effective therapeutic procedure and its complications were comparable to some international centre. There were mild degree of morbidity and zero mortality was observed throughout the study period

### **PP 32 - Introduction of a trilingual structured consent form : completed audit cycles from two institutions.**

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**RAJ Karunarathne**

**Surgical Unit, Base Hospital Kantale, Sri Lanka**

### **Introduction**

Informed Consent is an essential element before surgery. The objective was to uplift the quality of consent at Base Hospitals Warakapola(BHW) and Kantale(BHK).

### **Methodology**

Two audit cycles were completed at each institution. Initial audit: a data collection tool with 14 categories (who consented, informed the principle benefit, informed complications, legibility, documentation of surgery, laterality, complications, additional procedures, anaesthetic type, patients and clinician's name, patient's and clinician's signature and date) was completed after interviewing each patient with inspection of the completed consent. Re-audit: a trilingual consent form was introduced to BHW which was later used at BHK. P values less than 0.05 were considered statistically significant.

### **Results**

20 patients were recruited at each audit other than the re-audit at BHW (n=18). At initial audit at BHW the compliance was as follows; being consented by a doctor-20%, documentation of complications-0%, laterality-62%, anaesthetic type-10% and clinician's signature-10%.

At re-audit, a statistically significant ( $p < 0.05$ ) improvement of compliance was noted in all elements except in documentation of laterality, information of principle benefit and documentation of patient's signature.

At initial audit at BHK the compliance was as follows: consented by a doctor-95%, documentation of complications-0%, laterality-60%, anaesthetic type-90% and clinician's signature-95%.

At re-audit a statistically significant ( $P < 0.05$ ) improvement of compliance was noted in information of principle benefit, information of complications, legibility and documentation of complications.

### **Conclusion**

We were able to uplift the quality of consenting in both institutions with the successful introduction of a structured consent form.

### **PP 33 - Factors affecting serum CPK levels in acute lower limb ischaemia caused by popliteal artery injury – a retrospective analysis.**

SAPM Samararhunga, K W S M Wijayawardhana,

S D Rajamantri

Sri Lanka

### **Introduction**

Timely revascularization following popliteal artery results in limb salvage. However, rhabdomyolysis due to trauma, ischaemia, and ischaemia-reperfusion injury following revascularization, results in complications such as myocardial depression, arrhythmias, and AKI. Serum CPK levels and urine Myoglobin levels can be used as biochemical markers of rhabdomyolysis. In this study we explore the associated factors for rhabdomyolysis in popliteal artery injury and use the peak CPK (pCPK) values to quantify it.

### **Methodology**

32 patients who underwent repair of popliteal arterial injuries were analyzed. pCPK values were plotted against ischaemia time, number of long bone fractures, number of calf compartments affected, and the presence or absence of popliteal vein injury.

### **Results**

pCPK levels showed a rise with ischaemia times up to 15 hours (6608 in 5.5-11hrs, 16657 in 11-15 hours) and a gradual decline from 15 hours onwards. (10251 in 15-20 hours, 5135 in more than 20 hours). pCPK levels increase with the number of fractures (5550 in 1 fracture, 13482 in 2, and 17399 in 3), and decline with the number of affected calf compartments. (27184 in 1 compartment, 14026 in 2, and 3276 in 3). pCPK

rise in concomitant vein injury was more when the vein was repaired (10765,  $n=3$ ) than when the vein was ligated. (6638,  $n=8$ ).

### **Discussion and conclusion**

Knowledge on factors affecting CPK rise could be useful in anticipating complications of rhabdomyolysis. However, our results failed to implicate CPK elevation as a cause for renal and myocardial complications as none of the patients developed myocardial depression or AKI.

### **PP 34- Cosmetic and symptomatic improvement following great saphenous vein (GSV) endo-venous laser ablation (EVLA) with and without synchronous branch varicosity treatment – early results of a prospective observational study.**

SAPM Samararhunga, K W S M Wijayawardhana,

TK Fernando

Sri Lanka

### **Introduction**

EVLA is the first line treatment for symptomatic varicose veins. While some studies show better outcomes when both truncal and branch varicosities are addressed at the same setting, others show equivalent or acceptable outcomes in those who underwent truncal vein ablation only. Practical experience shows that most patients gained significant improvement following truncal ablation only and had regression of branch varicosities without further treatment.

### **Methodology**

We prospectively analyzed 10 patients (15 limbs). All patients had duplex confirmed SFI and belonged to CEAP grades 2-4. The AVVQ was used to assess pre-op and post-op symptom scores. Patients were followed up at 4 months to decide whether they needed further treatment for branch varicosities. All patients were reviewed at 6 months post-operatively.

### **Results**

Out of 10 patients, 3 underwent further foam sclerotherapy to treat branch varicosities at 4 months. Of the 15 limbs studied, only 2 limbs (of the same patient) showed worsening of symptoms after 6 months. The group which had only truncal ablation showed an average improvement of 88% ( $n=9$ ) and the group which had both truncal and subsequent branch varicosity treatment showed a 71% improvement. ( $n=4$ ).

### **Discussion and conclusion**

The results show that only 30% of the patients required further treatment for branch varicosities following truncal ablation. It is rational to offer patients the option of further treatment only if it is deemed necessary later. The results would have been more meaningful if a control arm was present which had both

truncal and branch varicosity treatment upfront.

**PP 35 - Overview of current trends in thyroid surgery in Sri Lanka.**

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**Professorial Surgical Unit, North Colombo Teaching Hospital, Sri Lanka**

**Introduction**

Thyroid surgery has evolved globally over the last few decades. A questionnaire based study was done to assess the changing trends in thyroid surgery amongst Sri Lankan surgeons.

**Methodology**

A pre-tested questionnaire was sent to 106 surgeons and senior registrars. Decision making in the management of thyroid diseases and technical aspects of thyroidectomy were assessed. Results were compared with a similar study from 2008 (n=33).

**Results**

32 (30%) responses were collected. Level of experience ranged from 5 – 25 years [mean = 9.18y(19y)]. Thyroidectomies per year ranged from 30–200[mean = 61 (53)]. Benign goitre was offered total thyroidectomy in 97% (35%). Differentiated thyroid cancer and medullary cancer were offered total thyroidectomy +/- lymphadenectomy over 90% in both studies. Graves (59% to 17%) and Hashimoto's thyroiditis (91%) were mainly managed non-surgically. External branch of superior laryngeal nerve was identified by 31% (9% in past study). Recurrent laryngeal nerve was visually identified by all (100% to 92%). Nerve stimulation was not utilized. Parathyroids were identified by 81% (22%). A drain was inserted by 56%.

**Discussion**

Thyroidectomy is a common operation performed by most surgeons. There is change in the trends in thyroid surgery. Most surgeons perform total thyroidectomy for benign disease now. Routine identification of vital structures has improved in the last decade.

**Conclusion**

Current trends in thyroid surgery appears to be in keeping with the global trends. Total thyroidectomy is the main operation for benign disease of the thyroid now.

I have read and agree to comply with the abstract submission guidelines. I understand that the decision/s of the reviewers and the Council of the College of Surgeons of Sri Lanka in relation to abstract submission, processing and the award of oral and poster presentations is / are final.

**PP 36- Solid pseudopapillary neoplasm of the pancreas: a case series**

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**Professorial Surgical Unit, Teaching Hospital Peradeniya, Sri Lanka**

**Introduction**

Solid pseudopapillary tumor(SPT) of the pancreas is a rare tumour of the pancreas with low malignant potential. Due to rarity of this tumour evidence regarding optimal management is sparse. Objective of this study was to examine the clinico-pathological characteristics and evaluate the surgical outcome of the disease.

**Methodology**

Retrospective analysis of 5 patients treated for SPT from 2015 to 2018 at Teaching hospital Peradeniya was carried out. Demographic, clinical, radiological and operative details were collected and analysed. All patients underwent contrast enhanced CT scan of the abdomen and chest followed by surgical resection.

**Results**

There were 4 females and 1 male patient. Mean age was 25.2 years. The most common clinical presentation was nonspecific abdominal pain (n=3). One patient presented with obstructive jaundice and another patient with feeling of abdominal lump. Mean duration of symptoms was 16.8 days. The most common location of the tumour was tail of the pancreas(n=4). None of the patients had evidence of liver or lung metastasis. Three patients underwent distal pancreatectomy with splenectomy and one without splenectomy. One patient underwent Pancreatico-duodenectomy. Mean duration of hospital stay after surgery was 10 days. None of the patients underwent adjuvant therapy. All patients are disease free up to present. (Mean duration of follow up was 29.4 months)

**Conclusion**

SPT of the pancreas is a rare pancreatic tumor that usually affects young females. CT scan is useful in preoperative diagnosis. Aggressive surgical resection provides the best chance for cure with a good long term prognosis.

### **PP 37 - prevalence of peripheral artery disease in patients with coronary artery disease**

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Consultant cardiologist, TH Jaffna

Registrar in surgery PGIM, Sri Lanka

#### **Introduction**

Atherosclerosis is a generalized vascular disease with carotid, coronary, and peripheral manifestations and with common risk factors too. Aim of the study was to find the prevalence of peripheral vascular disease (PVD) in coronary artery disease patients and correlation with risk factors.

#### **Methodology**

It's a prospective study on patients who underwent coronary angiography and diagnosed to have coronary artery disease (CAD), using the ankle brachial pressure index as a tool in our institute during the year 2018 included to find peripheral artery disease and used a questionnaire to collect the detail data. statistical package (SPSS) was used to analyse the data.

#### **Results**

Total sample is 148, 68.9% of them are male and mean age is 60.5. patients who are with ABPI < 0.9 are about 17.6% among them of that n=22 (84.6%) are asymptomatic and 4 of them are having symptomatic peripheral artery disease. majority of patients with PVD are suffering the multivessel disease. 46% of the patients are diabetic and 61% of them are hypercholesterolemic. only 23% of them are smokers.

#### **Conclusion**

Prevalence of PVD among the coronary artery disease patients is comparable to previously done studies. It's important to diagnose them early and prevent the local progression of the disease and future adverse events with early and aggressive medical management and focused care like foot care and diabetic control. Predicting other vascular complication can alert us to take extra measures to prevent complications while doing the cardiovascular interventions and provide an opportunity to treat the both at same time.

### **PP 38- Retrospective analysis of appendices removed for clinically acute appendicitis**

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G M K Bogammana

**Registrar in surgery PGIM, Sri Lanka**

#### **Introduction**

Acute appendicitis is a common general surgical presentation in daily practice. Appendectomy is decided mostly on the clinical ground supported with elevated WBC, CRP, and ultrasound scan especially in female patients. Negative appendectomies remains a concern in current surgical practice.

#### **Methodology**

We retrospectively analyzed the removed appendices received in the histopathology department in teaching hospital Kegalle during one year from January 2018. total of 121 patients included and details obtained from histopathologist record and patient's details.

#### **Results**

We found 45% of the total appendectomies are done in females. Negative appendectomy rate is 21%, 80% of them are females, we also found 4.1% of the females had ovarian pathologies, 5.8% of them had colonic malignancies. Among the positive group of patients, 5% of them had resolving and fibrosed appendices, 3.33% had ruptured appendices and only one patient was found to have carcinoid tumour.

#### **Conclusion**

More diligence is important in diagnosing appendicitis especially in young females and elderly. In compare to worldwide statistics, Our centre's negative appendectomy rate is in the high side. We need to invest time in imaging, preferably CT scan in patients more than 60 years old with right lower abdominal pain. And getting a more gynaecological opinion in females of reproductive age. CT scan and diagnostic laparoscopies will reduce the negative rate in the future.

### **PP 39 - Influence of monsoon rain on rupture of cerebral aneurysm in Sri Lanka**

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H M M L Herath

**Neurosurgical Unit Teaching Hospital Karapitiya,**

**Sri Lanka**

#### **Introduction**

The seasonal variation of cerebral aneurysm rupture is a well described occurrence in western literature. There is also

variation in rupture based on Monsoons.

### Methodology

A retrospective analytical study was conducted on the ruptured cerebral aneurysms that were operated at Teaching Hospital Karapitiya, Galle, Sri Lanka using the theatre database for a time period of five years. Aneurysms (n=61) were analyzed based on the Time of the year which was clustered into Tertiles which resembled the seasons in Sri Lanka based on the Monsoon rain. Average rainfall and temperature of Sri Lanka in different months was also calculated and correlated from online resources of the department of Meteorology.

### Results

Out of 61 patients, 33 were male (54.1%) and 28 female (45.9%). ACOM aneurysms were by far the commonest type (68.8%). The average age is 54 with the age range from 24 to 78. Statistical analysis of the aneurysm rupture and monsoonal rain variation at each tertile gave a Chi square value of 17.1 which indicated that the probability of this occurrence is statistically significant at a p value of less than 0.0001. So the rupture of cerebral aneurysms appear to have an association with the monsoonal rainfall which is proven and statistically significant.

### Conclusion

There is a statistically significant difference between the rupture of cerebral aneurysms depending on the time of the year. This appear to have some correlation with the seasons in Sri Lanka which is related to the rainfall and the monsoons.

### PP 40- Descriptive analysis of fatal and potentially fatal automobile accidents encountered at the accident service unit, Colombo South Teaching Hospital and impact of current legislation on such incidents

MAC Lakmal<sup>1,2</sup>, EMDNK Ekanayake<sup>1</sup>, SHP Kelum<sup>1</sup>, BD Gamage<sup>1</sup>, JASB Jayasundara<sup>1,3</sup>

1 Colombo South Teaching Hospital, Kalubowila

2 Post Graduate Institute of Medicine, Colombo

3 District General Hospital, Nuwaraeliya

### Introduction

Government has implemented new legislation to prohibit the importation of motor vehicles without safety measure(SM)s including seat-belts, air-bags and anti-lock brake systems. Such regulations wouldn't directly protect vulnerable automobile trauma victim(VATV)s like pedestrians, pedal/motor-cyclists and three-wheeler passengers which comprise a large proportion of Sri Lankan automobile trauma casualties. Thus, two-fold descriptive fatal/potentially fatal(PF) automobile trauma case analysis was performed at

Colombo South Teaching Hospital, to assess the management outcome and potential efficacy of new legislation.

### Methodology

Data of all admitted automobile trauma victims was audited for two months and of ones with fatal/PF injuries for a year in 2018. Cases related to suicide/homicide were excluded.

### Results

Out of 473 admissions[332(70.2%)-Males; Mean age 37.2 years] in June and July, 14(3%) and 95(20%) were fatal and PF. Twelve out of 14(85.7%), 78 of 95(82%) and 249 of 364(68.4%) cases of fatal, PF and other injuries occurred in VATVs(p-value=0.015:Chi-square). Among 459 survivors, 33/39(84.6%) with permanent disability, 95/110(86.4%) with temporary disability and 199/310(64.2%) with no disability were VATVs(p-value<0.0001:Chi-square). During one year audit, there were 96[81(84.4%)-Males] fatalities and 481[358(74.4%)-Males; Mean age 46.1years] near-fatalities. Eighty one of 96(84.4%) and 346/481(75.7%), fatal and PF injuries occurred in VATVs(p-value=0.064:Chi-square). Among survivors, 32/44(72.7%) and 155/192(80.7%) with permanent and temporary disability were VATVs(p-value=0.108:Chi-square). Within both audits all PF injury survivors required surgical/critical care intervention.

### Discussion and Conclusion

Significant majority of the fatal and PF injuries were in VATVs. Among survivors, VATVs had higher residual temporary/permanent disability. Given compulsory motor vehicle SMs are unlikely to directly protect such victims.

### PP 41 - Preliminary audit on medical record maintenance at a trauma unit using modified crabel score

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Colombo South Teaching Hospital, Kalubowila, Sri Lanka

### Introduction

Proper medical record maintenance (MRM) is essential for patient management, for audit, research and medico-legal purposes. After observing many deficiencies of MRM during a trauma audit, a separate audit was carried out to assess the quality of MRM at the Accident Service Unit(ASU), Colombo South Teaching Hospital. Modified CRABEL score was used as the audit tool.

### Methodology

Randomly selected 50 bed head ticket(BHT)s from both ASU wards were evaluated using modified CRABEL score (each marked out of 100) during June- July 2018 by the authors. Minimum admission duration was considered as 24 hours with a completed surgical procedure during the stay.

## Results

Mean percentage CRABEL score was 46.8% (Range 32-66). Common reasons for low scores (>50%) at initial clerking included inaccuracy in consultants name, deficient documentation of time, and lack of clinicians name/signature. More than 50% subsequent entries lacked time, heading and clinicians' signature or name. Consent segment lacked the documentation of risks/complications and explaining clinicians' details/ signature in 39(78%) and 44(88%) BHTs. Twelve (24%) and 17(34%) cases lacked the side of surgery and surgeons' name in operation notes and findings were deficient in 15(30%) notes.

## Discussion and Conclusion

MRM has varied deficiencies at ASU and there is room for improvement. Staff education, introduction of pre-printed consent form and an operation note sheet followed by continuous auditing would help to improve the quality of MRM.

### PP 42- Acute flank pain due to urolithiasis: diagnostic yield of X-ray KUB and ultrasound abdomen

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#### Introduction

Acute flank pain is a common presentation to the surgical casualty. Urolithiasis is the commonest cause of acute flank pain. Many imaging modalities are used in the diagnosis, such as X-ray kidney ureter bladder (XR KUB), Ultrasound abdomen (USS), computed tomography KUB (CT KUB), CT intravenous urography. CT KUB is the gold standard in the diagnosis of urolithiasis.

#### Objective

Assess the diagnosis yield of XR KUB and USS compared to the gold standard CT KUB.

#### Methodology

A retrospective analysis of patients presenting to our surgical casualty with acute flank pain from January 2016 to April 2019. All patients had XR KUB and USS on admission. Only the patients who did not have an apparent diagnosis or required further assessment, and had a CT KUB, were included in the study.

#### Results

Total of 58 patients had a CT KUB, 50(86.2%) had urolithiasis with some degree of hydronephrosis and hydroureter. 8(13.8%) had a normal CT KUB. Sensitivity and specificity of XR KUB in the diagnosis of urolithiasis was 50% and 40% respectively. Positive predictive value was

83.3% and negative predictive value was 11.7%. Comparatively USS had a sensitivity of 88% in diagnosing urolithiasis and specificity of 87.5%. Positive predictive value was 97.7% and negative predictive value was 53.7%.

#### Conclusion

USS had a significantly higher sensitivity and specificity compared to XR KUB in the diagnosis of urolithiasis in patients with acute flank pain.

### PP 43 - Injury pattern of patients under influence of alcohol - a single centre descriptive study

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NHSL, Sri Lanka

#### Introduction

Alcohol consumption has become a significant health hazard worldwide. It is increasing in low and middle income countries. Burden of alcohol related injuries is particularly alarming. In this study data was collected from patients who admitted to Colombo South teaching hospital during October and November 2018.

#### Methodology

One hundred patients from accident and emergency department, who were under influence of alcohol at the time of injury, were interviewed retrospectively. Influence of alcohol was determined according to the admission data. Demographic details and injury details were documented.

#### Results

All our patients were males. Common age group was 30-40 years. Nine percent had intracranial haemorrhage. Forty three percent of them had limb fractures, with upper limb fractures of 16% and lower limb fractures of 27%.

Six percent had abdominal solid organ injury. Common mechanism of injury was road traffic accidents. Twenty four percent was due to falls. Rest were due to self inflicted injury and assaults. Sixty two percent of them had post injury insight on the negative impact of alcohol on injury. Thirty eight percentage of persons determined to avoid alcohol and wished to be followed up in the rehabilitation clinic.

#### Discussion and Conclusion

Alcohol causes injury with significant disability. Proper implementation of rules and regulations on driving under influence of alcohol can reduce alcohol related injury. Further research and improving patients and public insight is beneficial in reducing alcohol related morbidity and mortality.

#### **PP 44 - The U classification in the assessment of thyroid nodules**

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##### **Objectives**

It has been suggested that the ultrasound features of thyroid nodule could be reliably used to predict malignancy. The U classification is based on these ultrasound features. The British Thyroid Association guidelines of 2014 recommends to use ultrasound features (U classification) to select patients with thyroid nodules for fine needle aspiration cytology(FNAC).

##### **Introduction**

To assess the correlation between pre-operative ultrasound reports and histology of thyroid nodules in a Sri Lankan health care setting.

##### **Methodology**

A retrospective analysis of patients who underwent thyroidectomy in our surgical department between January 2016 and April 2019. Ultrasound reports were categorized in to benign, equivocal, suspicious and malignant according to the U classification and correlated with the histological findings.

##### **Results**

Total of 109 patients had undergone thyroidectomy during this period. Females 96(88%), males 13(12%). According to the U classification- Benign 68(62.3%), equivocal 25(22.9%), suspicious 4(3.6%) and malignant 12(11%). Histological findings- benign 99(90.8%) and malignant 10(9.2%). Sensitivity and specificity of ultrasound to identify a malignant thyroid nodule was 70% and 65% respectively. Positive predictive value was 17% and the negative predictive value was 95%.

##### **Conclusion**

Using ultrasound only for the detection of malignant thyroid nodules does not appear to be a safe approach in our Sri Lankan setting. The quality of ultrasound reporting may be improved by strictly adhering to the U classification.

#### **PP 45- Retrospective analysis of patients who underwent sentinel lymph node biopsy (SLN) as an axillary staging for early breast cancer**

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**S Suthagar, GKS de Silva**  
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##### **Introduction**

Axillary lymph node status is one of the most important

prognostic factor in early breast cancer. SLN biopsy is being used for axillary staging in patients with clinically and radiologically negative axilla. This study correlates characteristics of primary tumour with positive SLN.

##### **Methodology**

A cohort of 494 patients with early breast cancer who underwent SLN for axillary staging from 2012 to 2018 in a single oncosurgical unit were retrospectively analysed. Data were obtained from the unit's database.

##### **Results**

Seventy four (14.9%) patients had positive sentinel nodes.

Tumour size had a significant relationship with SLN positivity with 10% of T1, 18.3% of T2 and 25% of T3 tumours having positive SLN.

Out of these 74 patients, 42 (57%) of positive SLN patients had their tumour in the upper outer, 14(19%) in upper inner quadrant, 12(16%) in lower outer and 6(8%) in lower inner quadrants of the breast, implying a significant relationship between the tumour location and the SLN positivity.

##### **Discussion and conclusion**

Upper outer quadrant lesions are more prone to have axillary nodal metastasis. Tumour size had a positive correlation with lymph node metastasis, with bigger the lesion higher the chance of having positive axillary nodes. Tumour grade or the receptor status didn't have a significant relationship with sentinel lymph node positivity in the analysed cohort.

#### **PP 46 - Prediction of the potential risk of accidental pancreatic duct(PD) cannulation and the severity of acute pancreatitis by the appearance of ampulla of vater during Endoscopic retrograde cholangio-pancreatography (ERCP)**

**Milan Gunawardene, Malith Nandasena, Aloka Pathirana,**  
**Bawantha Gamage, Thejana Wijerathne**

**Department of Surgery, University of Ruhuna, Sri Lanka**

##### **Introduction**

Accidental PD cannulation during ERCP causes acute pancreatitis with high morbidity and mortality. This study evaluates the potential risk of accidental PD cannulation & the severity of acute pancreatitis based on the endoscopic appearance of ampulla of vater.

##### **Methodology**

156 patients with virgin ampullae were subjected to ERCP with pre-cut sphincterotomy and biliary cannulation by an experienced hepato-pancreatico-biliary surgeon in Professorial Surgical Unit, Kalubowila over a period of one year. Endoscopic appearances of the ampullae were

categorized into four subtypes, described by the Haraldsson et al. Accidental PD cannulations in each subtype were documented and the patients were closely monitored for post procedure acute pancreatitis.

### Result

There were 34.62%(n=54) of Type-1(Regular), 20.51%(n=32) of Type-2(Flat), 29.49%(n=46) of Type-3(Pendulous) and 15.38%(n=24) of Type-4(Creased) ampullae. 28.85%(n=45) had accidental PD cannulation. 5.56%(n=3) of Type-1, 46.88%(n=15) of Type-2, 56.25%(n=26) of Type-3 and 4.17%(n=1) of Type-4 were there. 48.89%(n=22) developed acute pancreatitis following accidental PD cannulation. Majority(95.45%, n=21) of them had Type-2(40.9%, n=9) and Type-3(54.55%, n=12) ampullae. Patients with Type-3 ampullae developed mild acute pancreatitis while majority(77.78%, n=7) of Type-2 patients had acute severe pancreatitis.

### Discussion

Nearly 30% of patients, mainly with Type-2 and Type-3 subtypes had accidental PD cannulation during ERCP. Patients with Type-2 ampullae were more prone to get acute severe pancreatitis following accidental PD cannulation. Therefore, ERCP in patients with virgin Type-2 and Type-3 ampullae should be done very carefully.

### PP 47- Logistic regression to predict acute uncomplicated and complicated appendicitis

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Sri Jayewardenepura General Hospital, Sri Lanka

#### Objectives

Predicting acute uncomplicated from complicated would help in planning the timing for further management. Complicated appendicitis needs emergency surgery. Some believe that acute uncomplicated appendicitis could be managed conservatively with antibiotics. However, we the authors believe that a patient diagnosed with acute appendicitis should be managed surgically.

#### Introduction

Identify independent variables (Age, Gender, Log2 CRP, Log2 WBC, Log 2 Total bilirubin) to predict acute uncomplicated and complicated appendicitis.

#### Methodology

Retrospective analysis of patients who underwent appendectomy in our surgical department from January 2016 to April 2019. Depending on histological findings patients were categorized into normal, acute uncomplicated and complicated appendicitis. Normal appendix was

considered the reference category. Univariate and multivariate regression analysis were undertaken to detect independent variables (Age, Gender, Log2 CRP, Log2 WBC, Log2 Total bilirubin) to detect the significance and odds ratio to predict acute uncomplicated and complicated appendicitis.

### Results

Total of 156 patients. Histology: 12(7.7%) normal appendix, 138(88.5%) acute complicated and 6(3.8%) complicated appendicitis. Male:Female ratio was 1:1. Age range: 6 to 76 years. Univariate analysis to predict acute uncomplicated appendicitis showed statistical significance in gender, log2 CRP and log2 total bilirubin with odds ratio of 0.178, 2.212, 6.101 respectively. Age and log2 total bilirubin were significant to predict complicated appendicitis with odds ratio of 1.179 and 53.445. No statistical significance on multivariate analysis to predict complicated appendicitis.

### Conclusion

Total bilirubin and age were the only significant factors to detect complicated appendicitis whereas other factors were not significant predictors.

### PP 48 - Psychological adjustment following traumatic spinal cord injury (SCI): Sri Lankan perspective

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#### Introduction

Experiencing a SCI is a huge challenge which requires adaptation and resilience to develop new strengths and discover new ways of doing things not only physically, socially and vocationally, but also psychologically. This study evaluates common psychological problems in a Sri Lankan cohort of patients with traumatic SCI.

#### Methodology

Prospective cohort study conducted in Accident and Orthopaedic Department, National Hospital, Sri Lanka over six months including 94 patients with traumatic SCI. Changes in their personality, emotional status, behavior and cognitive function were assessed one month after the incident, using a questionnaire.

### Results

86 were males (91.49%) and 08 were females (8.51%) with a mean age of 36yrs. 41 had quadriplegia (43.62%) and 53 had paraplegia (56.38%). Majority of them were due to fallen from height (48.87%, n=45) and motor cycle accidents (40.43%, n=38). Common psychological problems identified

were Sleep disturbances (78.72%, n=74), Fearful night mares (72.34%, n=68), Mood swings (61.7%, n=58), Deficits in concentration (57.45%, n=54), Irritability (55.32%, n=52), Aggression (48.94%, n=46), Fear of death (44.68%, n=42), Memory deficits (42.55%, n=40), Suicidal ideas (38.3%, n=36), Poor impulsive control (29.79%, n=28), Hallucinations (26.6%, n=25) and Depression (25.53%, n=24).

### **Discussion and conclusion**

Patients with traumatic SCI may present with a wide spectrum of psychological trauma which requires early identification and timely intervention by a dedicated psychological rehabilitation team.

### **PP 49 - Magnitude of socio environmental concerns attributing to accidental falls in elderly.**

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#### **Introduction**

The average age of the population is increasing worldwide. As people grow old there is increased tendency for accidental falls. These falls lead to significant social and psychological consequences as they become isolated and the activities of daily living get restricted. The study was carried out among patients who were above 60 years of age, admitted to Colombo South teaching hospital following accidental falls during a three month period in 2018.

#### **Methodology**

Ninety patients whose fall was not precipitated by a medical factor were interviewed retrospectively. Any patients with significant medical illnesses were excluded. Data obtained in relation to gender, presence of assistance at the time of injury, accessibility of sanitary facilities within premises, safety status in the surrounding environment and weather status.

#### **Results**

Sixty four(71%)of them were females.Fifty eight (64%)of them alone, without assistance at the time of injury. Forty eight (53%)of them had to travel relatively long distance outside house to access sanitary facilities. Fifty one(56%) had slippery floors in the surrounding. Sixty two(68%) falls occurred in a rainy weather.

### **Discussion and Conclusion**

Majority of the accidental falls in elderly are preventable. Life of the elderly can be facilitated by health education on following aspects; provision of assistance by children or caregivers, arranging sanitary facilities in the close vicinity, reassuring safety in the environment, advice on precautions in rainy weather.

### **PP 50 - Causes of delay following vascular injuries. Experience at a peripheral unit**

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#### **Introduction**

Teaching hospital Anuradhapura (THA) functions as a tertiary vascular centre for northern.north-central and part of eastern and north western areas of Srilanka. Vascular injury patients are transferred by land causing delay. this study assesses the causes for delay and the outcome of vasculat injury at THA.

#### **Methodology**

Retrospective cross-sectional descriptive study of major vascular injuries from September 2017 to October 2018 Data on demography, cause, time of injury, delay of presentation and intervention, artery injured, type (direct or transfer) of admission, distance from hospital and outcome were collected.incomplete records were excluded.

#### **Results**

16 were included (15 males). Mean age was 35.0 years (17 - 16)There were 10 (66.7%) lower limb injuries. 6 (40%) were popliteal vascular. Common cause was trap gun injury (6/15-40%).Interposition graft repair was done in 11 (73.3%). Mean distance from hospital was 64 kilometers (10– 200). Mean time to reach THA 4.7 hrs. (1-11) and the mean delay for vascular intervention was 3.4hours (1-7). The mean time for reperfusion was 10 hours (6-14). The limb salvage rate was 15/ 16 (93.7%).

#### **Conclusion**

Mean ischaemic time was 10 hours and Ischaemic time is an important factor in outcome. Major cause of delay is transfers and preoperative preparation time. Training all future surgeons in emergency vascular repair and having dedicated accident and emergency services will improve the situation.

### **PP 51 - Burn injury in paediatric population in a peripheral surgical unit**

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**Surgical Unit, Base Hospital, Wathupitiwala, Sri Lanka.**

#### **Introduction**

Burn injuries in the paediatric population is a common surgical admission. Inquisitive and hyperactive age make this population vulnerable to burn injuries.

#### **Methodology**

Patients belonging to paediatric age group ( upto age of 14) admitted with burn injuries within a 6 months period (from 10.11.2018 to 10.05.2019) to the surgical unit were included in the study. Total number of 22 patients from the age of 1 year to 9 years were present; only 36% were female patients. 91% of all patients were in the age range of 3 years to 10 years, 54.5% were  $\leq 5$  years.

#### **Results**

63.6% had a burn surface area category of 5-10% and 54.5% had the injury on the chest and/or face. 20 out of the 22 had superficial burns and only 2 patients had circumferential burns. The most frequent culprit was hot water. Mean hospital stay was 2 days. 14 of the mothers were in the age group of 20-30 years and 15 of the children were from extended families. Only 10 mothers were educated upto GCE advanced level and only 6 of them were employed.

#### **Conclusion**

Burn injuries were more commonly seen in children of 3-10 years of age. Interestingly, a low educational level of mother, extended families and unemployment of the mother seemed to be associated with this hazard.

### **PP 52 - Hypocalcaemia following total thyroidectomy : a comparison between the two genders**

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**Surgical Unit, Base Hospital, Wathupitiwala, Sri Lanka**

#### **Introduction**

Hypocalcaemia following total thyroidectomy is a well-anticipated complication. Though, thyroid diseases is a female disease predominantly, the comparative number of males with thyroid diseases can not be overlooked. The study is to analyze whether the incidence of clinically transient hypocalcaemia has a difference between the two genders.

#### **Methodology**

A total number of 159 patients underwent total thyroidectomy from 01.04.2017 to 31.03.2018 in a single unit: 130 were females and 29 were males. 58% of female patients underwent surgery for a FNAC of Thy 2 compared to 55% in the male category. 34% of male patients had histologically proven thyroid malignancy. 20 female patients and 4 male patients developed clinical features of hypocalcaemia which were transient. None of them had permanent hypocalcaemia on follow up.

#### **Results**

Incidence of clinical hypocalcaemia in the overall study was 15%. The occurrence of hypocalcaemia in the two genders were compared and showed a statistically significant difference with a p value of 0.047. Age category of 40-50 years showed the highest incidence of post-thyroidectomy hypocalcaemia in both genders.

#### **Conclusion**

Hypocalcaemia occurs at a slightly higher frequency in the female population following total thyroidectomy. Increased demand of calcium due to menstruation, lactation, malnutrition and multiparity may contribute to this finding. Larger population studies are needed to elaborate on the above factors.

### **PP 53 - Descriptive Study on Fragility Fractures of the Hip presenting to a tertiary care center in Sri Lanka**

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**Accident Service - NHSL**

#### **Introduction**

Osteoporosis in elderly is a major risk for fragility fractures of the hip. It is associated with multiple medical comorbidities and is thus not exclusively a surgical issue. This study assesses the main patterns of hip fractures and its epidemiology in Sri Lanka.

#### **Methodology**

A retrospective cohort study was done among patients who presented to the Accident and Emergency Service (A&E) at the National Hospital of Sri Lanka over 6 month period. Patients diagnosed with fragility fractures of the hip were included in the study. Statistical analysis was done using SPSS 20.0.

## Results

Fifty seven patients were included in the study. 76.1% were female and the rest were male. The mean age was 79 (48 - 93) years. The commonest mechanism of injury was a fall from standing height (84.2%). 78.3 % were extracapsular fractures of the proximal femur, and the rest were intracapsular. Fracture fixation with dynamic hip screw was performed in 30.4%, proximal femoral nail in 17.4% and hemiarthroplasty in 17.4% of the patients. Thirty four percent of the patients were managed non operatively. Eighty percent of the patients had at least one medical comorbidity on admission. They included anemia (31%), diabetes (18%) and ischemic heart disease (18%). Presence of medical comorbidities was responsible for 47.8% of the delays in fracture fixation.

## Conclusion

Extracapsular proximal femur fracture is the commonest pattern of fragility fracture of the hip. Presence of medical comorbidities prevent patients from getting early definitive fixation of the fracture.

### PP 54 - Analysis of upper and lower gastro intestinal endoscopy findings

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RMRSRajapaksha, AU Wijemanne

**General Surgical Unit, Teaching Hospital, Kurunegala, Sri Lanka**

## Introduction

Upper Gastro Intestinal Endoscopy (UGIE) and Lower Gastro Intestinal Endoscopy (LGIE) which includes Flexible sigmoidoscopy and colonoscopy are frequently performed procedures for diagnostic and therapeutic purposes. The aim of the study is to analyze the findings with special interest in clinically malignant findings.

## Methodology

All patients who underwent UGIE and LGIE in a single unit in TH Kurunegala during a period of one year (1/4/2018-31/3/2019) were retrospectively analyzed.

## Results

There were total 931 endoscopies. 493 (53%) were UGIE and 438(47%) were LGIE (247 flexible sigmoidoscopies and 191 colonoscopies). Mean age for UGIE was 60.36 years (SD±13.8) and LGIE was 58.2years (SD±15.2). Common findings of UGIE included Gastritis (28.8%), Oesophageal varices (13.2%), Clinically malignant oesophageal growths (7.1%) with male predominance (p=0.012), Portal gastropathy(4.9%), Hiatus hernia(4.1%), Duodenitis (2.6%),

Oesophageal candidiasis(2%) and clinically malignant gastric growths(1.2%). Common findings of LGIE included Haemorrhoids(28.8%), Clinically malignant Rectal growths(4.3%) and colonic growths(1.5%), polyps(5%) and Inflammatory bowel disease(4.3%).

## Discussion and conclusion

Majority of UGIE findings are related to gastritis and significant proportion has clinically malignant gastric and oesophageal growths. Oesophageal growths are significantly higher in males. Majority of LGIE findings are related to Haemorrhoids and significant proportion has clinically malignant colorectal growths. UGIE and LGIE can be used as a primary investigation for gastrointestinal abnormalities, but further studies are recommended to support the use of them as screening tools.

### PP 55 - Descriptive analysis of culture and antibiotic sensitivity patterns of Diabetic foot ulcers

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## Introduction

Identification of common microorganisms colonized in diabetic foot ulcers and their antibiotic sensitivity test (ABST) patterns are important to treat the patients promptly and reduce morbidity and mortality.

## Methodology

Diabetic patients with foot ulcers presented to a single unit in Teaching Hospital Kurunegala over a period of three months (1/2/2019-30/4/2019) were analyzed using wound tissue/swab culture and ABST reports.

## Results

Among 35 patients, 18 were male. Median age was 57years (range 22-77). 27 tissue cultures and 8 swab cultures were analyzed. Culture positivity was higher in tissue samples (p<0.001). 17.1% (n=6) of the culture samples were negative. 71.4 % (n=25) of the culture samples were positive with monomicrobial organisms whereas 11.4%(n=4) were polymicrobials. Out of monomicrobials, 76% were Gram negative organisms. Among the monomicrobial Gram negative organisms, 68.4% were Gram negative enteric organisms and 26.3% were Pseudomonas. Each polymicrobial growth was also colonized with at least one Gram negative organism.

57.9% of monomicrobial Gram negative organisms were sensitive to Ciprofloxacin, 84.2% were sensitive to Gentamicin and 94.7% were sensitive to Meropenem.

### **Discussion and conclusion**

Tissue samples are recommended for Culture and ABST than swab samples. Majority of diabetic foot ulcers are colonized with Gram negative organisms. Empirical antibiotics which cover Gram negative organisms are advisable until Culture and ABST available.

### **PP 56 - Evaluation of factors associated with culture positivity of Diabetic foot ulcers**

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### **Introduction**

Diabetic foot ulcers are colonized with a range of organisms. Identification of factors associated with culture positivity is important in managing the ulcers and preventing associated complications.

### **Methodology**

Diabetic patients presented with foot ulcers to a single surgical unit over a period of three months in Teaching hospital Kurunegala were evaluated with selected factors which are associated with culture positivity of the ulcers.

### **Results**

Out of 35 patients, 18 were males and 17 were females. Mean age of the study population was 57.1 years (SD±9.8). Culture positive rate was 82.9% (n=29). Culture positivity was higher in deep ulcers ( $\geq 2$  Wagner classification),  $p=0.003$ . But culture positivity was not influenced by gender ( $p=0.330$ ), education level ( $p=0.714$ ), co-morbidities ( $p=0.330$ ), duration of ulcer ( $P=0.272$ ), size of the ulcer ( $p=0.318$ ), site of the ulcer ( $p=0.248$ ), previous non traumatic amputation history ( $p=0.089$ ), distal foot pulses ( $p=0.410$ ), findings of the monofilament test ( $p=0.143$ ), sugar control ( $p=0.438$ ), Anaemia ( $p=0.558$ ), C-Reactive proteins ( $p=0.143$ ) or albumin levels ( $p=0.068$ ).

### **Discussion and conclusion**

Culture positivity is higher among deep diabetic foot ulcers ( $\geq 2$  Wagner classification) irrespective of gender, education level, co-morbidities, duration, site of the ulcer, size of the ulcer, previous non traumatic amputation history, distal foot pulses, findings of monofilament tests, sugar control, anaemia, C-reactive proteins or albumin levels. Further studies are required to verify statistical significance of above findings.

### **PP 57 - An analysis of waiting time of surgical casualties in a peripheral hospital Sri Lanka.**

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**DGH Embilipitiya, Sri Lanka**

### **Introduction**

Analyzing the Accident and Emergency (A&E) unit waiting time and obtaining time goals is important regarding patient care. However, most peripheral hospitals in Sri Lanka do not equipped with an A&E unit and face challenges to achieve the time goals. This study assess the waiting time of surgical casualties in a peripheral hospital, without an A&E unit.

### **Method**

Waiting time of 736 surgical casualty admissions over one month were analyzed. Waiting time considered as the time between admission to ward and first clerking time. Although, maximum waiting time is four hours and time duration of notification for long term continuum care is one hour, according to A&E guidelines 2019 Sri Lanka, maximum waiting time was considered as one hour since the lack of A&E unit and long term continuum care is given by the same team.

### **Results**

Out of the total, 648 (88%) had a waiting time of less than one hour and 88 (12%) had more than one hour. Average waiting time was 23 minutes. Maximum waiting time was 4 hours and that is for single admission (0.13%).

### **Discussion**

All most all admissions had less than 4 hours waiting time. Considering the one hour limit, there are limitations to achieve, such as lack of staff, facilities and necessity of clerking routine surgical admissions. In conclusion this study shows that a peripheral unit can achieve 88% of the targeted time.

### **PP 58 - Assessment of efficacy of lumbar epidural steroid injection for low back pain : An outcome study**

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#### **Introduction**

Chronic low back pain due to lumbar disc herniation is commonly encountered in surgical practice. Lumbar epidural steroid injection is a minimally invasive method for management of patients with low back pain who had poor response to conservative methods. Our study aims to assess this procedure in management of low back pain with regards to efficacy and safety.

#### **Methodology**

Patients with sciatica due to lumbar disc herniation (LDH) were selected from clinic setup. All patients were over 18yrs old, gave consent and underwent epidural steroid injection in inpatient setting. 4mg Dexamethasone, 5ml of 0.5% Bupivocaine was administered.

Outcome was assessed according to reduction in pain (VAS). Functional level was assessed according to Oswestry Disability Index (ODI) in 3 months.

#### **Results**

Out of 56 patients 69.6% (n=39) were males. Mean age was 50.8 yrs (SD±14.20). Pre intervention pain was 7.98 (SD±0.98) and post intervention value was 5.03 (SD±1.47). Average reduction in pain was 2.96 (SD±1.32). Good pain response was defined as reduction in VAS  $\geq 3$  and seen in 73.21% (n=41). Commonest form of precipitating factor was lifting of heavy weight 64.28% (n=36) followed by trauma 10.71% (n=6). 78.5% of the study population had L4-5 disc herniation. Pre injection ODI value was 62.3 (SD±11.1) and 39.3 (SD±9.8) at 12 weeks. There were no major or minor complications.

#### **Conclusion**

Epidural steroid injections are a viable and safe method for management of low back pain due to LDH. It is cost effective and can delay the need for surgical interventions.

### **PP 59- Ileo-Ureteric with ileo-uterine fistula: diagnostic enigma**

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#### **Introduction**

Enteric fistulas with genitourinary tract are reported in various forms. Various aetiologies like crohn's disease, iatrogenic injury to urinary bladder or genital tract and malignancy are stated for it. The management in such cases are individualised depending on cause and extent of disease.

#### **Case Presentation**

A 62 year old lady presented with complaints of passing feculent discharge per vagina and pneumaturia since 1 month. CECT abdomen was suggestive of combined fistula of bowel with uterus and ureter with hydroureteronephrosis. Her Rheumatoid factor, HLA-B27 and anti-nuclear antibodies (ANA) were all negative and upper and lower gastrointestinal endoscopy were also non-contributory. Right percutaneous nephrostomy (PCN) was performed first to drain the infected right kidney. Then, she underwent resection of diseased bowel, Boari's flap and hysterectomy. Histopathology showed non-specific inflammation of bowel. At 9 months of follow up, she is doing well.

#### **Conclusion**

Complex bowel fistulas need a customized tailored approach. Hereby, we discuss the rare presentation of a disease process with an unusual etiology which was managed successfully with a multidisciplinary team approach.

### **PP 60 - Continuous glucose monitoring during enucleation of insulinoma in multiple endocrine neoplasia-1: can it predict complete removal?**

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#### **Introduction**

Insulinoma is MEN-1 are multifocal with no site predilection. Current guidelines do not favour particular surgical approach. Consequently, its anatomical location or individual centers experience which guides enucleation, partial or total pancreatectomy.

## Methodology

We encountered four patients of Insulinoma in MEN-1 from July 2017 to June 2018. Clinical symptoms, biochemical investigation and CECT abdomen was performed to clinch the diagnosis. MRCP was performed to determine its relation with main pancreatic duct and 68-Ga DOTANOC PET-CT was done to delineate other endocrine lesions. Enucleation was performed in all 4 patients with utilization of intra-operative continuous glucose monitoring (CGM) to ascertain removal of dominant lesion. An upward CGM spike was used to define excision of dominant lesion and confirmed in all patients. Demographics, pre-operative investigations, peri-operative parameters and outcomes of patients were reviewed.

## Results

All patients were female with median age was 36 years (range 28-45). The median serum Insulin and C-peptide level was 14.5  $\mu$ IU/mL (11.1-19.8) and 3.32 ng/mL (2.9-3.9) respectively. The median intraoperative blood loss was 40 ml (15-60), duration of surgery was 120 minutes (90-150) and median hospital stay was 5 days (4-7). None of our patient had pancreatic fistula or readmission in post-operative period. At the median follow up of 12 months, all patients are doing well with no episode of hypoglycemia.

## Conclusion

Continuous glucose monitoring can predict the complete enucleation of dominant lesion in insulinoma of MEN-1 subjects accurately, avoided major resection and can be used as an alternative.

## PP 61 - Accuracy of intraoperative frozen section diagnosis of glioma

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## Introduction

Frozen section is one of the popular intra operative tumour diagnostic method. This study is conducted to assess the accuracy of doing frozen section during resection of Gliomas. Study compare the frozen section vs final histology report, also conceded the age and sex distribution of Gliomas.

## Methodology

A retrospective analytical study was conducted on the Gliomas which was resected surgically. Study was carried out

at Teaching Hospital Karapitiya, Galle, Sri Lanka using the histology reports, theatre database and Bead head tickets for two years (2017 & 2018). Sample size was 65 (n=65). Frozen section analysis and definitive histology reports were compared.

## Results

Out of 65 patients, 33 were male (53.84%) and 30 females (46.15%). High grade glioma were the commonest among frozen section 40 out of 65 (61.53%) and final histology as well (55.38%). Low grade gliomas 25 (38.46%) in frozen section and 29 in final histology (44.61%). Its common among adult population and commonest in between 50 to 62 age group. The statistical analysis of the frozen section vs final histology reports gave a The chi-square statistic is 0.5068. The p-value is .476518. This result is not significant at  $p < .05$

## Conclusion

There is no statistically significance in between frozen section and final histology report. It means intraoperative frozen section is very accurate. Improvement of real time intraoperative frozen section analysis may help in proper glioma diagnosis and to have clear resection margins

## PP 62 - Timing of sedation to reduce pain during colonoscopy-A single unit experience

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## Introduction

Colonoscopy is widely used for diagnosis of colorectal pathologies and for therapeutic interventions. Pain during colonoscopy is sometimes interfere with the procedure. This study is to assess the association between timing of sedation and pain during colonoscopy.

## Material and method

A prospective analysis of 80 patients who underwent colonoscopy to investigate PR bleeding were selected. 25microgram of fentanyl and 2.5mg of midazolam were used for pain relief and sedation. Half of the group (Group A) were administered these drugs 5minutes before the procedure and others (Group B) were given just before the procedure. Severity of the pain was assessed according to Visual Analog Score (VAS) ten minutes after the procedure.

## Results

Out of 80 patients 41(51.25%) were females and rest were

males. 51(63.75%) patients were more than 50 years of age, 17(21.25%) between 40-49,12(15%) between 18-39 years. In group A minimum VAS was 2, maximum VAS was 4 and average VAS was 2.075. In group B minimum VAS was 2 and maximum was 6, average was 3.475.

### **Conclusion**

There was a significant difference in the pain during colonoscopy between two groups when pain relief and sedatives were given 5minutes before the procedure and just before the procedure( $P<0.05$ ). According to the results of this study we recommend administration of pain relief at least 5minutes before the procedure. We suggest multi centric large scale study to further confirm the results

### **PP 63 - Role of colonoscopy in the evaluation of patients presenting with fresh PR bleeding-a single unit experience**

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**NHSL, Sri Lanka**

### **Introduction**

Colonoscopy is used as both diagnostic and therapeutic tool. Appropriate use of colonoscopy aids in detection of colonic pathology. This study is to look for the causes of fresh PR bleeding

### **Materials and methods**

A prospective analysis of 80 patients presented with fresh PR bleeding to a surgical clinic, NHSL over a period of nine months started from 1st of May 2018 were carried out. Patients above 18 years, complaining of fresh PR bleeding as their main complaint were included.

### **Results**

Out of 80 patients 41(51.25%) were female. 51(63.75%) patients were above 50 years of age, 17(21.25%) between 40-49 years, 12(15%) between 18-39 years. 44(55%) patients had normal study, 13(16.25%) had hemorrhoids, 10(12.5%) had diverticular disease, 8(10%) had neoplasms, 3(3.75%) had ulcerative colitis, 2(2.5%) had solitary rectal ulcer. Out of 51 patients who were above 50 years 26(50.98%) had normal study, 11(21.56%) had haemorrhoids, 8(15.68%) had diverticular disease, 5(9.80%) had polyps, 3(5.88%) had malignant growths. 3(5.8%) patients who were above 50 years had right sided diverticuli.

### **Conclusion**

Significant proportion of patients above 50 years had positive findings. Diverticular disease seems to be an emerging cause of PR bleeding in Sri Lanka. Three patients above 50 years found to have right sided diverticuli. Colonoscopy should be encouraged in all patients above 50 years presenting with PR bleeding as significant number of them had clinically valuable findings.

### **PP 64 - Seasonal variation of occurrence of intussusception among pediatric population in southern Sri Lanka.**

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**Sri Lanka**

### **Methodology**

We retrospectively analyzed children admitted to pediatric surgical ward at teaching hospital karapitiya with diagnosed intussusception during a period of 3 years and 4 months. All patients are diagnosed with ultrasonic evidence and all underwent saline reduction of intussusception. 175 children were analyzed based on age and admission time of the year. Two groups of patients were formed according to time of the year (group A- October to march, group B-April to September). Those time periods resembles the major monsoon seasons of Sri Lanka respectively north east and south west monsoons.

### **Results**

Out of 175 patients 111 were male (63.5%) and 64 female (36.5%). average age group range from 12-18 months of age. Statically analysis of intussusception in October to march against April to September revealed higher number of patients during October to march with a t-test value of 0.0273. which indicate occurrence of intussusception is statically significant at p value of 0.05.

### **Conclusion**

There is a statically significant difference between occurrences of intussusception according to the time of year in southern province in Sri Lanka. With this evidence we could arrive at an inference that occurrence of intussusception has a seasonal variation in relation to monsoon patterns. However further studies are needed to prove these findings.

**PP 65 - Descriptive analysis of oesophageal biopsy reports in endoscopic screening at a tertiary care hospital in Sri Lanka**

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**Introduction**

Incidence of oesophageal carcinoma is rising in the world as well as in Sri Lanka. Also Barrett's oesophagus can lead to adenocarcinoma of oesophagus. We conducted this study to evaluate common diseases affecting oesophagus and Importance of endoscopy in identifying oesophageal pathology.

**Methodology**

Cross sectional analysis of Oesophageal biopsy reports following endoscopy from 2010-2017 at NHSL was carried out. 54 (2.8%) biopsy reports were excluded from the study due to incomplete data.

**Results**

A total of 1946 lower oesophageal biopsy reports were analyzed. 616 (31.6%) patients had Squamous cell carcinoma of oesophagus. Out of them 332 (53.9%) patients were male. 79% patients were above 50 years of age.

Adenocarcinoma of oesophagus was present in 191 (9.8%) patients out of which 165 (86.4%) were male. Of the patients reported as adenocarcinoma, 153 (80%) patients were the age of above 50 years.

Barrett's oesophagus was present in 147 (7.6%) patients. Of them, 85 (57.8%) patients were male. 26% (n=38) of patients were below 50 years.

Reflux oesophagitis was present in 207 (10.6%) patients. Hyperplastic stratified squamous epithelium was present in 100 (5.1%) patients. Inflammatory changes were present 204 (10.5%) patients and candidiasis was present in 7 (0.36%) of patients. Out of total biopsies 420 (21%) patients had normal study.

**Discussion and conclusion**

Squamous cell carcinoma oesophagus is the most common oesophageal pathology affecting 31% of total patients. Oesophageal pathology is common among males (55.8%). 21% reports were normal study, which emphasize the importance of adequate knowledge on oesophageal pathology during endoscopy as well as advanced technology.

**PP 66 - Quality of life and anal sphincter manometry following sphincter repair**

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**Introduction**

Anal sphincter defects occur following child birth and accidental perineal trauma leading to anal incontinence and poor quality of life (QOL). This study was aimed to assess the QOL and anorectal manometry outcome after anal sphincter repair.

**Methodology**

Fifteen patients underwent an overlap sphincter repair (2011 to 2018). All underwent a defunctioning colostomy prior to repair and subsequent reversal following complete healing. Anal manometry and QOL using validated scoring systems [(Vaizey score and fecal incontinence quality of life scale (FIQL)] were used to evaluate the severity of anal incontinence and QOL, before repair and six months after surgery. Wilcoxon Signed-Rank test was used to compare pre and post-operative values.

**Results**

Patients (male: female=3:12) with anal incontinence due to sphincter injury were analysed. The median age was 31.3 (range: 10-50) years. Mechanisms of injury were obstetric trauma (n=9), impalement following a fall (n=3), assault to the perineum (n=2) and RTA (n=1).

A statistically significant improvement in the median Vaizey score was noted after surgery (12.2 to 2.6, p=0.002). The median average sphincter resting pressure improved from (42.6 to 46.0 mmHg, p=0.281) and the median average sphincter squeeze pressure improved from (89.2 to 99.9 mmHg, p=0.159). There was a statistically significant improvement in the median QOL score (67.5 to 96.6, p=0.006) and individual scores related to lifestyle, depression, behaviour and embarrassment.

**Discussion and Conclusion**

The substantial drop in the Vaizey score revealed a considerable decline in the incontinence rates for gas, solid and liquid faeces. An improvement in anorectal manometry and QOL scores were noted after overlap sphincter repair, indicating a satisfactory outcome following surgery.

## **PP 67 - Epidemiology and pattern of Injuries from angular grinder cut admitted to Colombo South Teaching Hospital**

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### **Introduction**

Angular grinders are hand held energy tools, used for abrasive cutting. It has a cut- off disc which rotates high speed by an electrical motor. Protective guard over the blade and protective wear are used to prevent grinder injuries.

### **Methodology**

All 59 patients who were admitted within 4 months from 1st of December 2018 to accident service of Colombo South Teaching Hospital, following grinder cut injury were included in this study. Information was collected by the investigator administrated questionnaire.

### **Results**

Mean age was 42.8 years (20-75 years, SD 13.4). All were males. Majority were educated beyond grade 5 (51, 86.4%). 64.2% (38) had monthly income between Rs. 25,000-75,000. Most were right hand dominant (53, 89.8%). 8(13.5%) were non-occupational injuries. 10.2% (6) injuries were due to inexperience with the grinder use. 52.5% (31) have not worn protective wear. 79.7% (47) of the grinders didn't have the protective guard. 10.2% (6) were under influence of alcohol. Injury sustained as follow: 37(62.3%) upper limb injuries, 13(22%) lower limb injuries ,18(30.5%) trunk injuries ,2(0.03%) facial injuries . Types of limb injuries were ; finger amputations(6), toe amputation(1), tendon cut (25), hand and feet open fractures (8).

### **Discussion**

The angular grinder injuries mostly affect extremities, disabling the economically productive age group. These injuries can be reduced by proper training, increasing the availability of protective wear, using protective blade guard, and avoiding alcohol during work hours.

## **PP 68 - Assessment of cervical spine following trauma: is our approach effective?**

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### **Introduction**

Cervical spine assessment is an integral part of trauma. This is a prospective study to assess the effectiveness of the approach to assess the cervical spine, practised at a tertiary care unit.

### **Methodology**

Prospective analysis of 127 polytrauma patients admitted to the accident service from 03/04/2019 to 11/05/2019 was done.

### **Results**

In the asymptomatic group(n=78),44 patients (56.41%) were clinically ruled out of cervical injury.11 patients had lower GCS and direct CT c-spine was done on them. Commonest indication for x-ray in the asymptomatic group is for judicial medical purposes (60.86%). 23 asymptomatic polytrauma patients underwent x ray c spine, no abnormality detected on them.

In the symptomatic group(n=49), neck pain (65%) was the commonest symptom. Limb weakness or paraesthesia observed in 9 patients and underwent CT c-spine directly and had a positive finding in 7 patients.40 patents without focal neurological deficit had a cervical spine x ray ,8 patients needed CT spine and 4 patients found to have cervical fractures. adequate exposure observed in 47.5% (n=19) patients. 5 patients needed additional x-ray views.

### **Conclusion and discussion**

Standard cervical spine assessments use complex pathways with CT c-spine or 5 view plain x-ray as the first line of radiological investigation. In busy trauma units, a quick, efficient and cost effective method is needed. Clinical and two view plain x ray, although with a limited exposure were able to predict the possibility of cervical injuries. Simple cervical spine assessment is an effective method with possible health cost benefits.

**PP 69 - Prospective descriptive study on anatomical location of perianal fistula tracts of patients in professorial surgical unit, Teaching Hospital Peradeniya**  
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**Professorial unit Teaching Hospital Peradeniya, Sri Lanka**

### **Introduction**

It is vital to delineate the anatomy of fistula tract before successful treatment. Several classifications are used to guide the surgeon to identify the tract correctly and Parks' classification is top of among them. This study aims to describe the anatomy of fistula tract in a Sri Lankan cohort in comparison to Parks' classification system.

### **Methodology**

A Sample of 36 patients with perianal fistula were examined. Internal opening was identified by probing or Hydrogen peroxide/Saline injection. Number and position of internal and external openings, course of primary tracts, horseshoeing and other associated conditions were documented.

### **Results**

The median age was 43 years (range 18- 68 years) with majority of males (83%). Of the study group, 66 % (n=24) had trans-sphincteric fistula, 19% (n=7) had inter-sphincteric, 11% (n=4) had superficial and only 2 % (n=1) had supra-sphincteric fistula. Horseshoeing was noted in 31% (n=11) of patients and 72% (n=8) of them were in infralevator ischaorectal fossa. Cavities were identified in 44% (n=16) of patients where 75% (n=12) of those were located in infra levator position in ischaeo rectal fossa. Most of the patients did not have any other pathologies in perineal region.

### **Conclusion**

In this study more trans-sphincteric fistulae were identified than inter-sphincteric in contrast to parks classification and significant amount of superficial fistulae observed. 76% of fistulae were compliant with Goodsall's rule.

**PP70 - Bladder cancers presenting to a urology unit: a descriptive study**

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**Post Graduate Institute of Medicine, University of Colombo, Sri Lanka**

### **Introduction**

Urothelial malignancies of bladder cause a major burden on health sector expenses. The knowledge on characteristics, disease pattern and disease demography of urothelial malignancies can help to improve resource allocation and planning disease prevention. This study aims to analyze the demographic and histopathological characteristics of urothelial malignancies of the bladder, presented to a tertiary care Urology unit.

### **Methodology**

All cases of urothelial bladder cancers attended by Urology unit of TH Galle during the period of January 2018 – December 2018 was retrospectively analyzed. Re-do interventions were excluded. Histopathological reports of selected cases were analyzed using SPSS (20.0)

### **Results and Analysis**

Seventy nine cases met the inclusion criteria with a mean age of 66.6 yrs and an age range of 29yrs -92yrs. There was a statistically significant male predominance ( $P < 0.0001$ ,  $X^2 = 87.608$ ). Histopathological evaluation revealed that 59.4% (n=47) were low-grade, and 40. % (n=32) were high-grade urothelial tumors. Only four cases (5.06%) were proven to be muscle invasive tumors and occurred only in males. Though muscle invasive tumors occur in advanced age group, the difference was statistically not significant ( $p=0.1801$ .,  $SE = 6.143$ ).

### **Discussion**

Prevalence of bladder cancers was high among males, probably due to high risk behaviors eg: smoking. Muscle invasive high grade urothelial cancers were common amongst elderly men. However assessment of muscle invasiveness depends on the technique and the depth of tissue sampling.

**PP 71 - Correlation between prostate volume, prevoidal bladder volume, post voidal residual volume and international prostate symptom score (IPSS) in men with lower urinary tract symptoms (LUTS)**

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**Post Graduate Institute of Medicine, University of Colombo, Sri Lanka**

**Introduction**

International Prostate Symptom Score (IPSS) is a validated questionnaire tool used to quantify LUTS in men, with benign prostatic hyperplasia (BPH). Prostate volume (PrV), Pre-voidal bladder volume (PVBV) and Post-voidal Residual volume (PVRV) are crude ultra-sonographic urodynamic measurements.

**Methodology**

This is a prospective analytical study. Thirty six consecutive patients with BPH registered at Urology department, teaching Hospital Galle were interviewed and their PrV, PVBV and PVRV were measured by trans abdominal ultrasonography. Data were analyzed using Pearson Correlation test.

**Results**

The mean age of study population was 67.33 years (SD = 7.69) with a mean PrV of 45.5ml (SD = 25.40). Mean PVBV and PVRV were 286.63ml (SD = 141.36) and 149.08ml (SD 105.23) respectively. Only ....% of study cohort (n=.) had an IPSS > 7.

**Analysis**

There was no correlation between age and PrV ( $p=0.36$ ), PrV and PVBV ( $p=0.771$ ) or PVRV ( $p=0.205$ ). However there was a statistically significant positive correlation ( $r=0.710$ ) between PVBV and PVRV ( $p<0.001$ ). There was no correlation between the prostate volume and the total IPSS.

**Conclusion**

Though IPSS can be used to assess symptom severity, it does not indicate the anatomical and physiological dynamics of BPH i.e. Prostate volume, PVBV and PVRV. Prostate size does not dictate the urodynamics in BPH, hence PVBV and PVRV.

**PP 72 - Factors affecting post-surgical outcome in neurosurgical patients in a tertiary care center: a descriptive study**

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**Introduction**

Head injury requiring surgical interventions are a challenge to health care providers and health care systems. Surgical outcome may be complicated by prolonged hospital stay, disability and significant amount of mortality. This study wishes to describe factors which affect the final outcome of trauma neurosurgeries.

**Methodology**

All patients who required craniotomies or craniectomies following head injury, presented to Teaching Hospital Karapityta between January 2018 and April 2018 was included. Data was analyzed using SPSS (20.0).

**Results and Analysis**

Forty-six patients were included, 44 of them were male. More than 80.4% ( $n=37$ ) were aged less than 55 years. Majority ( $n=34$ , 73.9%) had extradural hemorrhage. Only seven (15.2%) had subdural hemorrhage, and five had both. Postoperatively 32 (69.5%) were discharge without dependency and five with dependency. Post-operative mortality was 19.5%. There was a statistically significant correlation between outcome and intraoperative finding, ( $p=0.000$  SE = 0.162) and preexisting medical complications. ( $p=0.00$  SE = 0.103.)

Age of the patient ( $p=.103$  SE = 0.00), initial GCS ( $p=0.401$  SE = 0.068) and initial pupillary reactions ( $p=0.538$  SE = 0.153) didn't have a statistically significant correlation with outcome. Surgical delay in the hospital also didn't have a statistically significant impact ( $p=0.671$  SE = 0.000) over the final outcome.

**Discussion**

The outcome following trauma neurosurgery was only affected by intraoperative findings and the preexisting medical condition. Initial GCS and the pupillary reaction and hospital delay did not have a significant impact over final outcome.

### **PP 73 - Pattern of tibia fractures presented to tertiary care unit in southern province: descriptive study**

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**Post Graduate Institute of Medicine, University of Colombo, Sri Lanka**

#### **Introduction**

Tibia fractures are a common presentation to casualty surgical unit. These are often associated with extensive soft tissue injury and requires complex surgical interventions and prolong hospital stay. This study wishes to appreciate the demographic pattern and the mechanisms involved with the tibia fractures.

#### **Methodology**

Tibia fractures presented to teaching hospital Karapitiya between 20018 August and 2018 October were included in the study. Malleoli fractures were excluded. Data were analyzed using SPSS (20.0).

#### **Results and Analysis**

Hundred and twenty three patients were included. Aged between 2- 87 years (  $\bar{x}$ =39.78). Majority were males (71.5%) and were associated with road traffic accidents (RTA) (n= 92, 74.8%). Out of them 69(56%) were motorcycle riders. Victims of non-RTA were mostly (n=21) following a fall. RTA was the major cause in younger age group (P=0.023 SE=0.042). The site of the fracture was not associated with the mechanism (p=0.387 SE =0.035). Most (n=78, 63.4%) were compound fractures. 32 of the victims had isolated Tibia Fractures while the rest had associated other fractures. Compound fractures were more among males (p=0.000 SE= 0.067).

#### **Discussion**

Tibia fractures were common among young males. Most common cause was RTA out of that motorcycle riders were at risk. Effective road safety protocol system may contribute to a reduce such accidents.

### **PP 74 – The survival in differentiated thyroid carcinoma : a cohort study**

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#### **Introduction**

DTC has a good prognosis overall. Survival data is deficient in Sri Lankan patients. A study was designed to assess the

survival in DTC patents in a tertiary center.

#### **Methodology**

A prospective cohort study on all patients undergoing thyroidectomy at the Professorial Surgical Unit, North Colombo Teaching Hospital (NCTH) for DTC, was done from 2005. Clinical, biochemical, radiological, cytological and surgical parameters were recorded in all. A single surgeon performed all thyroidectomies. Histological confirmation was done for all. Patients were followed up regularly at surgical clinic. Data were analyzed using Kaplan-Meier statistical methods.

#### **Results**

36 papillary (age range 19-49y, mean 32.38y) and 20 follicular (age range 22-68y, mean 34.75y) carcinomas were assessed for 3 and 5 year survival. In follicular carcinoma 8 (40%) were alive and 11 (55%) were lost to follow up. In papillary carcinoma 21 (58%) were alive and 12 (33%) were lost to follow up. 4 patients of the cohort have died (1 follicular and 3 papillary carcinoma). For both carcinomas when assessed together, the 3 and 5 year survival were 91.6% (82.7% - 100%). There was no significant difference in survival for both carcinomas analyzed from Kaplan-Meier survival curves.

#### **Discussion**

The 5 year survival for papillary and follicular carcinomas is 91.6%. This is marginally lower than the global survival rate. Significant lost to follow up may partly account for this.

#### **Conclusion**

The 3 and 5 year survival rate is 91.6% for both carcinomas. Further assessment for the significant lost to follow up is required.

### **PP 75 - A review of outcome of thoracoscopic splachniectomy**

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**Teaching Hospital Peradeniya, Sri Lanka**

#### **Introduction**

Pain is one of the major concerns in chronic pancreatitis disturbing day to day activities. In a majority pharmacological management is adequate. But there is a group of patients who has a poor response to oral medication requiring frequent admissions for opioids. Thoracoscopic splachniectomy is known to be effective providing pain relief. Objective is to review outcome of thoracoscopic splachniectomy done for chronic pancreatic pain.

## Patients and method

All patients referred to our unit with chronic pancreatitis were included from 2012/08 to 2019/04. Any duct occlusions were managed by ERCP/ open surgery. Pharmacological pain management was done with consultation of the pain team. The pain was evaluated by a numerical rating scale (NRS). Those who had a poor response were subjected to bilateral thoracoscopic splanchnicectomy. The pain scores were compared pre and post operatively and during long term follow up.

## Results

33 patients underwent procedure. There were 24 males and 9 females. Age ranged from 13 to 65. All patients had a very good pain relief, NRS of 7-10 dropping to zero in majority of patients while others having a score of 1-3. The longest follow up is 6 years and 9 months. They still remaining pain free. One patient had a poor response and later was diagnosed of carcinoma of pancreas.

## Conclusion

Thoracoscopic splanchnicectomy is an effective way of providing satisfactory and long lasting pain relief in chronic pancreatitis.

## PP 76 - Lower limb fractures following motor cycle accidents; an upcoming socio-economic crisis in

### Sri Lanka

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## Introduction

Motor cycle is a commonly used transport modality in Sri Lanka. Increase in motor cycle accidents is becoming a major socio-economic burden to the country. Most of the victims are brought to hospitals with lower limb fractures. Understanding the epidemiology helps to implement short term and long term management strategies.

## Methodology

Descriptive analysis done in Accident and Orthopaedic Department, National Hospital, Sri Lanka over six months including 286 patients with lower limb fractures following motor cycle accidents. Evaluation of their demography, education, social status, fracture pattern and final outcome was done.

## Results

88.81 % ( n=254) of patients are males. 80.42 % ( n=230) belongs to 20-60yrs. 64.34 % ( n=184) had lower secondary education. 48.8 % ( n=136) were skilled labourers. 51.75 % ( n=148) had taken alcohol during the accident. Multiple lower limb fractures were found in 65.03 % ( n=186). 58.7 % ( n=168) had open fractures of which 61.31 % ( n=103, 36% of population) were tibia and fibular fractures. Tibia was the most commonly fractured long bone (84.27%, n=241). 19.93 % ( n=57) underwent amputation of which 45.61 % ( n=26, 9.09% of population) were major lower limb amputations.

## Discussion and conclusion

Loss of energetic work force due to motor cycle accidents is not compensable for a developing country like Sri Lanka. As there is nearly 10% of major lower limb amputation risk, a good rehabilitation programme is mandatory. Majority of accidents are preventable by modifications in attitudes, behavior and road discipline with concomitant implementation of new laws and regulations.

## PP77 - Risk factors associated with cellulitis of lower limb: a hospital based case control study in surgical unit, District General Hospital Polonnaruwa

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## Introduction

Cellulitis is an infection of the skin and subcutaneous tissues. The identification of preventable risk factors could reduce infection-related morbidity and cost and improve patient management. The aim of this study was to ascertain the potential risk factors associated with lower limb cellulitis.

## Methodology

A hospital based case-control study was performed in 70 cases with cellulitis and 140 hospitalized controls without cellulitis, matched for age and sex in Surgical unit, District General Hospital Polonnaruwa over six-month duration. Data were obtained with a structured questionnaire. Variables emerging as significant in the univariate analysis were included in the logistic regression using backward stepwise likelihood ratio method (removal criterion -  $p \geq 0.1$ ), to bring out independent risk factors for lower limb cellulitis by calculating the Adjusted Odds Ratios (AOR) and the corresponding 95% Confidence Interval.

## Results

The mean age was 53.8(SD+19.6) years for cases and 54.3(SD+19.4) years for controls. After controlling for potential confounders, past history of saphenectomy (AOR=16.98, 95%CI=1.49-193.24, p=0.022), presence of toe-web intertrigo(AOR=15.23, 95%CI=5.11-45.33, p<0.001), traumatic wound(AOR=3.65, 95%CI=1.69-8.23, p=0.002), dry skin(AOR=3.05, 95%CI=1.34-6.95, p=0.008), diabetes mellitus(AOR=2.43, 95%CI=1.08-5.4, p=0.030) and Body mass index >=25kg/m<sup>2</sup>(AOR=2.37, 95%CI=1.1-5.12, p=0.027) were significantly associated with lower limb cellulitis.

## Discussion and conclusion

The past history of saphenectomy, toe-web intertrigo, traumatic wound, dry skin, diabetes mellitus and high body mass index are the potential risk factors of lower limb cellulitis in this study. Prevention strategies aimed at foot care and care of simple wounds, with special emphasis for diabetics and maintaining healthy body weight could reduce the risk of this condition.

### PP 78 - Value of Glasgow coma scale as a predictor of survival after decompressive craniectomy for middle cerebral infarction

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#### Introduction

Infarctions of the middle cerebral artery territory increases intracranial pressure rapidly due to ischaemic oedema, often requiring surgical decompression. This study evaluates the value of Glasgow Coma Scale as a predictor of the survival following decompressive craniectomy for Infarctions of the middle cerebral artery territory.

#### Methodology

21 patients who underwent decompressive craniectomy for Infarctions of the middle cerebral artery territory within 24 hours of the incident were included in the study. Patients with age above 60 years, with severe co-morbidities and with GCS of 15 were not subjected to surgery as a unit policy. Mere Survival was used as the tool for the outcome assessment.

#### Results

Patients were 08 females and 13 males of 32 to 56 years of age. They were stratified into three groups based on the preoperative GCS. None of the 09 patients with GCS 3 – 8 were survived. 04/08 patients with GCS 9 – 12 and 03/04 patients with GCS 13 – 14 were survived. All survivors of

GCS 9 – 12 categories were vegetative (awake but unresponsive) on discharge. 03 survivors of the GCS 13 – 14 categories were awake and responsive but neurologically disabled.

## Discussion and conclusion

GCS 9 is the predictive cut off value for survival in our study group. Therefore, considering the poor survival and unfavorable prognosis, cost of care and clinical work load, decompressive craniectomy for the middle cerebral infarction with GCS less than 09 can't be rationalized.

### PP 79 - Value of X ray KUB & ultrasonography in decision making to manage urolithiasis at the base hospital level in Sri Lanka

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#### Introduction

Urolithiasis is a one of the leading causes of abdominal pain. NCCT – KUB is the gold standard to diagnose the urolithiasis (specificity – 98%-99% & sensitivity – 95%-98%) & determinant of therapeutic options. Stick to recommended guidelines of management of urolithiasis is challenging with limited facilities available at Base hospital level. This study is to value X ray KUB & ultrasonography to evaluate the patients with abdominal pain due to urolithiasis & in management

#### Methodology

This was conducted as prospective study at Base hospital, Homagama, Sri Lanka from October 2018 to March 2019. Patients got admitted with non-traumatic abdominal pain were evaluated clinically & with imaging (X ray KUB and ultrasonography). A total of 59 patients were included with NCCT – KUB for comparison. Children & pregnant women were excluded.

#### Results

The median age was 46(range 16 – 81) years and 60% were males. Thirty patients (50.8%) complained colicky pain. Microscopic haematuria was detected in 35 patients (59.4%). X ray KUB identified calculi in 23(39%) patients (sensitivity – 47.7%) & ultrasound KUB, 40(67.8%) Patients (sensitivity – 85.1%). Both detected 45(76.3%) patients (sensitivity – 93.1%). Hydronephrosis & hydroureter were detected in 26 (44.1%) & 21 (35.6%) patients respectively. Ureteric calculi were the most frequent (28.8%). Median size was 6 mm (range 03mm – 30mm).

## Discussion and conclusion

Accurate detection, characterization and identification of complications of urolithiasis is essential for management decisions. Combination of both imaging modality increases the stone detection. Ultrasonography directly influences the decision making of urolithiasis management.

## PP 80 - Analysis of 75 consecutive patients admitted with road traffic accidents to a single surgical unit at GH Matara.

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### Introduction

Road traffic accidents cause high rate of mortality and morbidity. Many of those can be prevented. We planned to identify causes for RTA to launch preventive strategies.

### Methodology

We prospectively analysed all consecutive patients admitted to surgery Unit A GH Matara from 08/02/2019-21/04/2019. Results-There were 75 patients with 42(56%) males, 27(36%) females and 06(08%) children. There were motor bicycles (MB) 53(72%), three wheelers 09(12%), push bicycles 05(07%), cars 03(04%), buses 02(03%), tractor 01(1.5%) and lorry 01(1.5%). Causes for accidents were wrong driving technique of opponent vehicle 28(38%), own wrong driving technique 23(32%), animal/human crossing the road 09(12%), high speed 06(08%), vehicle mechanical failure 05(07%), illness of victim 02(03%). Injuries included limb fractures 18(24%), rib fracture 01(01%), Intra cranial haematoma 03(04%), free fluid in abdomen 02(03), lacerations 19(25%). There was one death. There were 06(08%) victims under alcohol influence, 03(04%) were without driving license, 05(07%) were riding MB without helmet. Area injured included limbs 28(37%), head 25(33%), face 23(31%), extremity 23(31%), chest 09(12%), abdomen 06(08%) and neck 02(03%). Highest number of accidents happened 6 am-12 noon 26(36%)

### Conclusion

Highest number of accidents involved with MB (72%). Main cause for the accidents is wrong driving technique (72%). Special riding education for motor cyclists stressing on possible injuries and preventive safety precautions will be

helpful for reducing RTA. Main body areas affected were limbs (37%) with 24% fractures. Safety equipment use by motor cyclists to protect limbs will reduce the limb fractures.

## PP81 - Colorectal cancer: single surgeon experience

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### Introduction

Colorectal cancer is the 4th and 6th commonest cancer among males and females in Sri Lanka, respectively [1] and its incidence is on the rise. With an aging population and the absence of an established screening programme. It has the potential to become a major health problem in coming years. Objective of this study was to identify basic characteristics of colorectal cancers encountered in a tertiary care unit.

### Methodology

Retrospective analysis of patients treated for histologically proven colorectal cancer at Teaching hospital Peradeniya by a single surgeon from June 2016 to May 2019 was carried out. Demographic, operative and histological details were collected and analyzed. All patients underwent surgical resection of the tumor.

### Results

There were total of 43 patients with a male to female ratio of 1:1.04. Mean age at presentation was 58.9 years. Majority of the patients had tumors involving rectum (n=29). Right side of the colon was involved in 3 patients (6.9%). There were two patients with familial adenomatous polyposis coli (4.6%). Laparoscopic surgery was performed in 15 cases (34.8%) with a conversion rate of 13.3%. Most common histological type was adenocarcinoma (n=42). One patient had a squamous cell carcinoma (2.3%). Majority were moderately differentiated (n=37) with one case of poorly differentiated carcinoma (2.3%). Most of the tumors were confined to the colon and extra colonic local invasion was seen in 3 cases (6.9%).

### Conclusion

Findings of present study is comparable with previous similar studies in regards to gender distribution, mean age of presentation and histological type [2]. Although Occurrence of right side colonic cancer (6.9%) is less compared to previous similar studies [2] (18%).

## **PP 82 - Solid pseudopapillary neoplasm of the pancreas: a case series**

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### **Introduction**

Solid pseudo papillary tumor (SPT) of the pancreas is a rare tumour of the pancreas with low malignant potential. Due to rarity of this tumour evidence regarding optimal management is sparse. Objective of this study was to examine the clinicopathological characteristics and evaluate the surgical outcome of the disease.

### **Methodology**

Retrospective analysis of 5 patients treated for SPT from 2015 to 2018 at Teaching hospital Peradeniya was carried out. Demographic, clinical, radiological and operative details were collected and analyzed. All patients underwent contrast enhanced CT scan of the abdomen and chest followed by surgical resection.

### **Results**

There were 4 females and 1 male patient. Mean age was 25.2 years. The most common clinical presentation was nonspecific abdominal pain (n=3). One patient presented with obstructive jaundice and another patient with feeling of abdominal lump. Mean duration of symptoms was 16.8 days. The most common location of the tumour was tail of the pancreas (n=4). None of the patients had evidence of liver or lung metastasis. Three patients underwent distal pancreatectomy with splenectomy and one without splenectomy. One patient underwent Pancreaticoduodenectomy. Mean duration of hospital stay after surgery was 10 days. None of the patients underwent adjuvant therapy. All patients are disease free up to present. (Mean duration of follow up was 29.4 months).

### **Conclusion**

SPT of the pancreas is a rare pancreatic tumor that usually affects young females. CT scan is useful in preoperative diagnosis. Aggressive surgical resection provides the best chance for cure with a good long term prognosis.

## **PP83 - Correlation between WBC count, CRP level, blood picture findings and histologically proven acute appendicitis from a tertiary center**

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### **Introduction**

Acute Appendicitis is the most common abdominal emergency. Acute Appendicitis is a clinical diagnosis, but the inflammatory serum markers have been used to aid in the diagnosis of acute appendicitis

### **Objective**

To assess the correlation between WBC count, CRP level, blood picture findings and histologically proven acute appendicitis

### **Methodology**

100 consecutive patients who have undergone appendectomy from September 2017 to February 2018 (6 months) from Teaching hospital Kurunegala were enrolled. Patient demographics, WBC count, CRP level, blood picture findings, operative and histological finding were analyzed.  $P < 0.05$  was considered significant. Statistical analysis was done using student t-test and chi square in SPSS 20.0.

### **Results**

Mean age was 25.02 years (range 3-68). Male: Female ratio was 1.38:1. 65% of patients had neutrophils leukocytosis. 70% of patients had elevated CRP levels. 81% had neutrophil toxic changes and 75% had left shift of the blood cells. Histopathology revealed 8% had normal appendix, 69% had acute appendicitis, and 3% had recurrent acute appendicitis and 20% had acute suppurated appendicitis. Elevated CRP was significantly associated with abnormal histology ( $p=0.049$ ). Mean CRP of patients with acute suppurated appendicitis was significantly higher than the rest ( $p=0.005$ ). Neutrophil toxic changes in blood picture was also significantly associated with appendicitis in histology ( $p=0.02$ ). White cell count and neutrophil percentage were not significantly associated with appendicitis.

### **Conclusion**

This study revealed that CRP level and blood picture findings are useful in diagnosing acute appendicitis before a decision is made to offer surgery.

## **PP 84 - Quality of life assessment following laparoscopic anterior resection; challenges beyond standard care**

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### **Introduction**

Anterior resection with or without neoadjuvant therapy is the current standard for carcinoma of the rectum. Furthermore, laparoscopic anterior resection (LAR) offers early post operative recovery without compromising oncological outcome. However, quality of life following LAR is less often evaluated in our population.

### **Methodology**

Forty three patients underwent LAR from 2014 to 2018. Uncontactable patients (n=14), patients with permanent or temporary stoma (n=5) and patients who are dead (n=8) were excluded. Data collected from remaining patients using the European Organization for Research and Treatment of Cancer (EORTC) QLQ-C30, QLQ-CR29 and Low Anterior Resection Syndrome (LARS) Score as an Interviewer administered questionnaires.

### **Results**

A total of 16 patients were interviewed. The mean age of the study group was 64.2 (SD ±9.74) and Male to female ratio was 1.2 to 1. The mean duration after completion of surgical procedures was 22.6 months (SD ±14.9). According to LARS score 62.5% (n=10) of our population had major LARS. There was no significant difference between major LARS and location of the tumour (Lower vs mid and upper rectum ; p=0.551) or post op duration (<12 months vs >12 ; p=0.182). Similarly, no statistically significant difference was observed between the two groups in functional, symptom, and global scores either.

### **Discussion and conclusion**

Majority of our population had major type of LARS regardless of the tumour location and post op period. These findings are required to be further evaluated in a larger population while delivering individualized care for the patients with distressing symptoms.

## **PP 85 - Cumulative antimicrobial susceptibility and resistance patterns in a private hospital in Sri Lanka**

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Our institute provides a report on antimicrobial patterns annually to the clinicians since 2016. This reports data of 2018 with a comparison.

Data were filtered from the laboratory information system (CLIMS from SRL-India 2.0.2.0) analyzed using Excel 2010. Nearly 50,000 samples processed, about 16, 500 samples grew organisms. Urine cultures top the list 10,435, whereas *Escherichia coli* and *Klebsiella* were isolated 3000 times each out of many.

Carbapenem resistance among Enterobacteriaceae and pseudomonas revealed 85% resistance in *Acinetobacter* and 30% in *Klebsiella* and the rest is lower. Out of Aminoglycoside resistance patterns, *Acinetobacter* showed Netilmycin 70% and Gentamycin 65% resistance but other organisms remain susceptible to all aminoglycosides. 50% MRSA and 43% MSSA showed Erythromycin and clindamycin resistance while the rest of the gram positives were most susceptible. More than 50% of *Staphylococcus* strains remained susceptible to fusidic acid, while 100% to mupirocin and Linezolid. Among quinolones, Nalidixic acid, Norfloxacin and Ciprofloxacin resistance was highest in *Acinetobacter* around 80%, when *E.coli* and *Klebsiella* around 65% but Levofloxacin still remain under 30%.

*Acinetobacter* showed 80% resistance to 3rd generation cephalosporin (Ceftazidime) while all the others under 30%. *Candida* showed below 30% resistance to antifungals Fluconazole, Ketoconazole, Itraconazole, Miconazole, and Clotrimazole while 100% susceptible to Amphotericin B. 2018 data showed significant resistance than that of 2016 while 2017 was not. Clinicians can use this data to optimize management of infections while minimizing the development of resistance; a global threat.

**PP 86 – Has time arrived to revise the conventional surgical technique of total thyroidectomy? a single unit experience**

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**Introduction**

Total thyroidectomy is generally considered as a challenging procedure, which need concentration and application of fine surgical techniques to preserve laryngeal nerves and parathyroid glands which may take long hours. Aim of this study is to introduce the unit's practice of thyroidectomy. Key features are ligation of inferior thyroid arteries at carotid artery bed and carrying out the dissection only with monopolar diathermy instead of bipolar. It's an quick procedure and its effectiveness was measured by postoperative quality of voice and incidence of permanent hypocalcaemia. Demographic and histopathological data were assessed.

**Methodology**

150 patients admitted to unit for total thyroidectomy since July 2018 to February 2019, were recruited to this prospective study. Data were collected by a predesigned interviewer based questionnaire. Pre and postoperative voice quality and serum calcium levels were measured.

**Results**

There were 132(88%) females and 18(12%) males. Out of 150 patients, 70(46.6%) were malignant. Types of carcinoma were papillary 53(75.7%), hurthle cell 11(15.7%) and follicular 6(8.5%). Mean time taken for total thyroidectomy was 36 minutes. 50(33.3%) individuals experienced transient hypocalcaemia and 16(10.6%) had persistent hypocalcaemia. No one had significant change in postoperative quality of voice ( $p > 0.05$ ). 101(67.33%) were discharged on postoperative day 1.

**Conclusion**

This surgical technique of total thyroidectomy has a greater impact in reducing theatre time and anticipated complications remain within acceptable range.

**PP 87 - Renal cancers - two year experience in a tertiary care urology center: a descriptive study.**

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**Introduction**

Renal cancers account for 3% of cancers diagnosed in adults, of which 90-95% are renal cell cancers. Due to lack of early warning signs these cancers present in late stages and surgical resection remains the main stay of treatment. This study aims to describe the demographical and histo-pathological characteristics of renal cancers presented to a tertiary care urology center over two years.

**Methodology**

Histo-pathology reports of all nephrectomies done during 2017-2019 were analyzed. Partial nephrectomies and nephrectomies done due to traumatic ruptures and emphysematous pyelonephritis were excluded.

**Results and Analysis**

Total of 18 cases were included with a male predominance (2:1). Mean age was 55.89 years (Range 30 – 74, SD = 13.93). In 2/3 cases, right side was involved. Tumor volume ranged from 8cm<sup>2</sup> – 1716cm<sup>2</sup> ( $x=423.14$ , SD = 520.5). Perinephric fat involvement and lymph vascular invasion was seen in 22.2%, but ureteric involvement and breached Gerota's fascia was not seen in any of the cases of this cohort. Tumour grade 1a outnumbered all other grades ( $n=4$ , 22.2%) while grade 4 was seen in only one case. Clear cell renal cell cancers were the most common histological type ( $n=12$ , 66.6%), while papillary renal cell carcinomas ( $n=3$ , 16.7%), renal oncocytoma ( $n=2$ , 11.1%) and chromophobic eosinophilic variant of renal cell carcinoma ( $n=1$ , 5.6%) accounted for the rest.

**Conclusion**

Renal carcinoma occurs more commonly in middle aged males in Sri Lankan population. Surgical resection has been offered for most of the early disease. Clear cell renal cell carcinoma is the most common histological type.

**PP 88 - Is routine cavity shaving during conservation surgery for breast cancer useful? an experience of a tertiary referral breast surgery centre in Sri Lanka.**

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**Introduction**

Evidence shows no survival advantage or reduced local recurrence rates with Mastectomy over Breast Conservation surgery and radiotherapy. Margin status is a predictor of local recurrence. Obtaining cavity shaving is one method to indicate the adequacy of excision although there is lack of consensus on the need to perform routine cavity shavings.

**Methodology**

Retrospective analysis of 29 out of 35 patients who underwent Wide Local Excision with Routine Cavity Shaving for biopsy proven Invasive Duct Carcinoma during the period of January 2018 to April 2019 were performed. 7 patients were excluded due to lack of adequacy of records. All decisions were made following MDT meeting.

**Results**

48.2% were between 40 -50 years. Final histology was 82.75% Intra duct Carcinoma (NST), 6.89% Papillary and 6.89% Tubular Carcinoma. One patient had Multi Focal High Grade DCIS. 5 patients (17.24%) had one margin positive but negative cavity shavings corresponding to that margin, thus avoided re-excision before irradiation. One patient reported as Invasive Duct Carcinoma on core biopsy was found to have all margins positive for High Grade DCIS only but no Invasive Carcinoma on the excised specimen. She underwent Mastectomy. Out of 7 patients (24.1%) who had negative margins, 6 patients had positive cavity shavings for DCIS of which 3 who had High Grade DCIS underwent re-excision before radiotherapy. One had a second invasive Cancer which was not detected previously, also underwent Radiotherapy.

**Conclusion**

Study indicates the usefulness of performing routine cavity shaving for evidence based decision making.

**PP 89- Effectiveness of multi-disciplinary meeting for breast cancer management in 2018: survey from a general surgical unit specialized in breast surgery at National hospital of Sri Lanka**

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**Introduction**

Breast cancer is the commonest cancer among female in world and in Sri Lanka. Multi-disciplinary management is considered the best treatment modality for breast cancer and multi-disciplinary meetings (MDMs) are used for coordinated care. However, the impact of MDMs on breast cancer management in Sri Lanka has not been widely studied.

**Methodology**

Data gathered from the MDM records, surgical records and the registry managed by the general surgical unit specialized in breast cancer surgery were used. Average duration for MDM to primary surgical treatment and the impact of MDM to final surgical outcome were studied.

**Results**

96 female breast cancer patients were discussed in 48 MDMs in 2018. Range of 1 – 7 cases were discussed per meeting. Primary surgical management, neoadjuvant therapy and chemo-therapy alone were recommended in 84.4%, 14.6% and 1% respectively. Of those with a primary surgical management, 61.7% were decided for mastectomy while 38.3% for breast conservative surgery. The mean duration from MDM decision to primary surgical intervention was 11.2 (+/-11.3) days. In 84.3% the surgical intervention was same as MDM decision but, in 15.7% primary surgical management was different to that of MDM.

**Conclusion**

Mean duration from MDM decision to surgery is compatible with similar data worldwide. Reasons for difference in primary surgical intervention compared to MDM decision need further studies and the MDM discussions need to be improved accordingly. Follow up studies are recommended to assess the duration from MDM to surgery following neoadjuvant therapy.

## **PP 90 - Does prostate size correlate with the international prostate symptom score (IPSS)?**

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### **Introduction**

Benign prostatic hyperplasia (BPH) presents with a spectrum of symptoms which is objectively assessed using IPSS. It consists of eight questions - seven related to symptoms and one question on impact of the disease over the quality of life. Prostate volume is objectively assessed using Trans-abdominal ultrasound scan (USS). This study aims to assess the correlation between prostate volume and individual components of the IPSS and cumulative IPSS.

### **Methodology**

This is a prospective analytical study. Thirty-six consecutive patients with BPH, presented to urology clinic -TH Galle was included. Single investigator administered the IPSS questionnaire on each patient at the initial clinic visit. All were subjected to routine trans-abdominal USS to assess prostate volume. Correlation between prostate volume and each component of IPSS was assessed using Spearman's correlation coefficient.

### **Results and analysis**

The mean age and prostate volume of the study group was 67.3 years (SD=7.69) and 45.5ml (SD = 25.4) respectively. There was no statistically significant correlation at  $p=0.05$  level, between prostate volume and frequency ( $\rho=-0.001$ ), urgency ( $\rho=0.12$ ), nocturia ( $\rho=0.10$ ) weak stream ( $\rho=-0.185$ ), intermittency ( $\rho=0.078$ ) or sense of incomplete emptying ( $\rho=0.15$ ). But, individual score for straining was correlated with prostate volume ( $\rho=-0.34$ ,  $p=0.039$ ). There was no statistically significant correlation between the cumulative IPSS and the prostate volume ( $\rho=0.012$ ,  $p=0.943$ ).

### **Conclusion**

Volume of the prostate does not determine the severity of symptoms of BPH. Therefore assessment of prostate volume does not have an impact over symptom analysis. However prostate volume helps to determine the treatment options in BPH.

## **PP91 - Profile of paediatric solid tumours in Sri Lanka: a retrospective analysis**

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### **Introduction**

Paediatric solid tumours are markedly different in clinical behaviour, origin and histology from adult solid tumours. It is important to understand the epidemiology and clinicopathological features for early diagnosis. Published data regarding paediatric solid tumours in the local setting is minimal.

### **Methodology**

A retrospective study was carried out by extracting data from histopathological reports and MDT forms of 208 children with solid tumours, presented to Lady Ridgeway Hospital from 2016 to 2018.

### **Results**

The majority were boys ( $n=111$ , 53.4%). Age at presentation ranged from 2 months to 14 years with a mean age of 4.75 years. 15.4 % ( $n=32$ ) were infants and 48.1 % ( $n=100$ ) between 1-5 years. The most common presentations were mass (32.2%,  $n=67$ ) and constitutional symptoms (22.1%,  $n=46$ ), while 16.3 % ( $n=34$ ) were incidental findings. Regarding the origin of tumour, 21.6 % ( $n=45$ ) were renal, 18.8 % ( $n=39$ ) adrenal and sympathetic trunk, 12% ( $n=25$ ) in liver, 11.5% ( $n=24$ ) were lymphomas, 7.7 % ( $n=16$ ) in bone. Up on analysis of histopathology, the commonest tumour was neuroblastoma ( $n=40$ , 19.2%) followed by nephroblastoma ( $n=37$ , 17.8%), lymphoma ( $n=27$ , 13.0%), hepatoblastoma ( $n=23$ , 11.1%), sarcoma ( $n=22$ , 10.6%) and rhabdomyosarcoma ( $n=18$ , 8.7%). Metastatic disease was present in 19.2 % ( $n=40$ ). The commonest tumours presenting with secondaries were neuroblastomas (7.2%,  $n=15$ ), nephroblastomas (2.4%,  $n=5$ ) and lymphomas (2.4%,  $n=5$ ).

## Discussion and Conclusion

Neuroblastoma, nephroblastoma, lymphoma, hepatoblastoma, sarcoma and rhabdomyosarcoma were the commonest paediatric solid tumours accounting for 80%. Most of the tumours were common in age group of 1-5 years except for lymphomas, sarcomas and osteosarcomas which were more prevalent in 5-12 age group. Presenting symptoms showed a wide spectrum, while the most common presentations were mass and constitutional symptoms. There was a considerable number of tumours found incidentally.

### PP 92 - Long term post-treatment quality of life in breast cancer patients from a tertiary care surgical unit

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#### Introduction

Surgery and adjuvant therapy is known to affect the quality of life (QOL) in patients with breast cancer. This study was aimed at describing post-treatment long term QOL in patients treated for breast cancer.

#### Methodology

Thirty-one female patients who underwent treatment (including surgery) for breast cancer at the Professorial Surgical Unit, National Hospital of Sri Lanka were analyzed after a minimum of one year following completion of treatment. Demographic, clinical and QOL parameters were collected using an interviewer-administered validated QLC BR-23 and EORTC QLC-C30 questionnaires. Non-parametric tests were used for statistical analyses.

#### Results

The median age was 58 years (range 42-81). The majority were postmenopausal (31%). Seventeen (55%) underwent mastectomy and 14 (45%) underwent wide local excision. Thirteen (42%) underwent axillary node dissection. Majority (n=25, 81%) were early breast cancers. The median EORTC QLC-C30, QLC BR-23, overall health and overall QOL scores were 76.2 (range 21-98), 77.2 (range 36.7-100) and 33.3 (range 0-83.7) respectively. Significant positive correlations were noted between the QOL parameters (p: range 0.001 to 0.023). Significant associations were noted between overall health and QOL with age (p=0.021 and 0.024, respectively). Type of surgery, stage or level of education were not associated with QOL. Although a positive association was noted between income and QOL score, it was not statistically significant (p=0.09).

## Conclusion

In our study, the QOL parameters were satisfactory with a median of greater than 75%. Age was the only statistically significant factor associated with QOL. Further studies with a larger sample size will be helpful to identify factors associated with QOL.

### PP 93 - Pattern of renal cell carcinoma in patients who underwent nephrectomy in a Sri Lankan tertiary care centre.

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#### Introduction

Renal Cell Carcinoma represents 6th most frequently diagnosed cancer in men and 10th in women. In Sri Lanka, there were 187 reported cases of cancer associated with kidney in males and 68 in females in 2014.

#### Methodology

Operative records and database of adult patients above the age of 14 underwent nephrectomy from all three urology units in NHSL, between August 2013 to August 2018 are analyzed retrospectively using SPSS.

#### Results

There were 90 patients who underwent nephrectomy for renal cell carcinoma out of which 53 (58.8%) are less than 60 years old with a mean age of 56.2. Male to female ratio is 2.2:1. There were clear cell, papillary, medullary, eosinophilic variant, sarcomatoid, chromophobe, clear cell papillary and clear cell with rhabdoid histological subtypes, first being the commonest with the number of 70 patients. 47 patients (52.2%) found to have lesion on Right side while 43 (47.8%) on Left side. Considering tumour extension, 38 (42.2%) patients had T1 disease, 12 (13.3%) with T2 disease, 36 (40%) with T3 disease while only 4 (4.4%) with T4 disease. In the latter, all the 4 patients had tumour invasion to Gerota's fascia while only one patient had tumor invasion to ipsilateral adrenal gland.

#### Conclusion

RCC affects working population with males more than twice as females. Both Kidneys are almost equally affected and just above (T1+T2) half the cases are confined to the kidney.

## **PP94 - Long term post-treatment psychological outcomes in breast cancer patients from a tertiary care surgical unit**

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### **Introduction**

Surgical treatment and adjuvant therapy is known to affect the quality of life and psychological outcomes. This study was aimed at describing the long term psychological and sexual outcomes in patients treated for breast cancer.

### **Methodology**

Thirty-one female patients who underwent treatment (including surgery) for breast cancer at the Professorial Surgical Unit, National Hospital of Sri Lanka were analysed after a minimum of one year after completion of treatment. Demographic, clinical and psychological parameters were collected using interviewer-administered validated instruments including Rosenberg self-esteem questionnaire (RSQ), sexual adjustment (SAS) and body image scale (BIS). Non-parametric tests were used for statistical analyses.

### **Results**

The median age of the cohort was 58 years (range: 42-81). Majority were postmenopausal (n=30, 97%). Seventeen (55%) underwent mastectomy and 14(45%) underwent wide local excision. Thirteen (42%) underwent axillary node dissection. Majority (n=25, 81%) were early breast cancers. The median RSQ, SAS and BIS were 52.5(range30-70), 51.4(range29-89) and 45(range17.5-90), respectively. Significant positive correlations were noted between the RSQ scores and SAS and BIS (p=0.006 and p<0.001, respectively). A positive association was seen between RSQ and level of education although, this did not reach statistical significance (p=0.06). No association was noted between the above psychological parameters and age, type of surgery, stage, and income (p>0.05).

### **Conclusion**

The overall psychological and sexual outcome measures were moderate with a median of approximately 50%. Education level was positively associated with self-esteem. Larger studies will be helpful to identify useful clinical factors associated with psychological outcomes.

## **PP 95 - Surgical outcome of feminizing genitoplasty in children with disorders of sex development**

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### **Introduction**

Feminising genitoplasty is a complex operation performed in girls with genital virilisation with the aim of achieving normal anatomy for cosmesis and reproductive function. We studied the outcome of feminising genitoplasty among children with 46,XX DSD

### **Methodology**

A descriptive study was conducted from August 2017 to March 2018 on 24 children with 46,XX DSD who underwent feminising genitoplasty and presently being followed up. The surgical outcome was assessed in terms of anatomy, cosmesis and complications using a pretested questionnaire.

### **Results**

Median age at review and duration after surgery were 10 years (range:3.3-17) and 58 months (range:12-130) respectively. Median age at surgery was 3.5 years (range:1-12.5). Twenty (83%) underwent a single-staged procedure while 4 (17%) underwent multi-staged procedures. Pre-operative virilisation stage was Prader IV in 11 (46%) and III in 6 (25%). The majority underwent vaginoplasty with clitoral surgery and labioplasty (n=23, 96%) and one underwent clitoral reduction alone.

Complications included urinary incontinence (n=3, 13%) and urinary infections (n=2, 8.6%). Overall appearance was good in 65.2% (n=15), satisfactory in 30.4% (n=7) and poor in 4.3% (n=1). All with urinary incontinence had undergone total urogenital sinus mobilization (TUM) (37.5%, n=3, p=0.09). Scarring of vestibule was seen in 21.7% (n=5) and was higher among staged surgeries (75%, n=3, p=0.003). No significant associations were noted between outcome and age at surgery or follow-up duration.

### **Conclusion**

Surgical outcome was satisfactory in the majority of patients in the short term. Complications were associated with staged surgery and TUM which will be discussed.

### **PP96 – Carcinoma gall bladder in portal hypertension**

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#### **Introduction**

Gall bladder cancer (GBC) is amongst the most common malignancy in our world with decimal prognosis. We aimed to analyse issues faced during surgical management and impact on survival in backdrop of portal hypertension (PHTN).

#### **Methodology**

950 patients of GBC were evaluated retrospectively 404 of which underwent radical cholecystectomy. 11 patients with perioperative evidence of PHTN were reviewed.

#### **Results**

Of the 11 patients, seven underwent resection. In the non resected group one patient underwent trial dissection and closure. Second patient underwent segment 3 bypass because of locally advanced cancer with cirrhosis. Two patients were not considered for surgery because of advanced Child B status. Seven patients underwent liver resection with various degree of lymphadenectomy depending upon status of collaterals. There was no early postoperative mortality with median stay of five days (4-8). Of the resected patients three patients died at 40, 43, 49 months respectively. Four patients are surviving with median survival of 40 months (7-148).

#### **Conclusion**

Survival in patients who underwent resection was not inferior to resected patients without portal hypertension. Non of the non resected patients had long survival. Surgery should be offered to all the resectable patients with Child A or early Child B liver cirrhosis. Lymphadenectomy may be modified in presence of collaterals. Assessment of ascitis can be tricky. Placement of umbilical port for staging laparoscopy may injure periumbilical collaterals. Poor nutritional status secondary to liver cirrhosis increases postoperative complications. Impaired synthesis of clotting factors, decreased vitamin k stores and decreased platelets may lead to excessive bleeding and coagulopathy.

### **PP97 - Pattern of injuries of trauma patients treated in a trauma intensive care unit of a level 1 trauma center in Sri Lanka**

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#### **Introduction**

There is very little literature describing patterns of injuries of patients treated in trauma intensive care (ICU) units in Sri Lanka. Our objective was to determine pattern of injuries of patients in the trauma intensive care unit of National Hospital of Sri Lanka (NHSL).

#### **Methodology**

This was a prospective observational study. All trauma ICU admissions over four months in NHSL were included in the study. Isolated intracranial injuries were excluded from the study. Admission characteristics, mechanism of injury, place of injury, mode of admission to the ICU were recorded.

#### **Results**

Sum of 123 patients were included in the analysis. Most common mechanism of injury was motor cycle crashes (34.1%); followed by pedestrian injuries (11.4%), violence (11.4%), fallen from a height (9.8%), motor vehicle collision (8.9%), three wheeler crashes (8.1%) and other mechanisms (16.3%). The most frequent place of trauma incident was road traffic area (69.1%). 20.3% of admissions was related to alcohol use. 34.1% were direct admissions to trauma center, while 65.9% of admissions were transfers from other hospitals. Injuries by anatomical region of body were head and neck 45.5%, face 4.1%, chest 39%, abdomen 33.3%, extremities 61.2% and external 47.2%.

#### **Conclusion**

Two third of the critical care admissions to ICU were due to road traffic accidents of which motor cycle crashes were the predominant. Most common body region to get injured was extremities. Majority constitutes transfers from other hospitals.

**PP98 - Analysis of outcomes of trauma patients treated in the intensive care unit of a level 1 trauma center in Sri Lanka**

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PCI wijesinghe, Bishman Thevarajah  
**Accident and orthopaedic services, NHSL, Sri Lanka**

**Introduction**

Current data that describes outcomes of patients in trauma intensive care units In Sri Lanka is negligible .Our goals were to determine characteristics and outcomes of trauma patients treated in the trauma intensive care unit (ICU) of National hospital of Sri Lanka (NHSL).

**Methodology**

This was a prospective observational study. All trauma ICU admissions over a four months period in NHSL were included in the study. Isolated intracranial injuries were excluded from the study as they are managed in Neurotrauma ICUs. Admission characteristics, pre-existing disease conditions, injury severity score (ISS), complications and treatment outcomes in the ICU were recorded.

**Results**

Total of 123 patients were included in the analysis; Average age of the patients was 41.19 (14-95). Out of them 82.1 % were males and 17.9 % were females. Average ISS was 26.44 (4-59). Mean length of stay in the ICU was 7.69 days (1 – 54). Average ventilated days were 3.54 (0-35). ICU mortality was 15.4 % (19 of patients). 83.7% were transferred to ward after treatments; and 0.8 % of patients were transferred to another ICU. 43.1 % of patients developed complications during the ICU stay. Out of them most frequent complications were sepsis (19.2%), pneumonia (13.5%), AKI (11.5%) and ARDS (11.5%).

**Conclusion**

The mortality rate of patients treated in the intensive care unit of the level 1 trauma center in Sri Lanka is within acceptable range when compared with the international research data.

**PP99 - To drain or not to drain – a retrospective analysis of drain tube (DT) use during incisional hernia repair (IHR) and a survey of general surgeon practice.**

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**Introduction**

The indications and outcomes of leaving a DT following IHR is debatable. The Aim of this study was to explore surgeon preference with regards to DT use and retrospectively identify if DT use during IHR leads to better outcome.

**Methodology**

This was a two-part study, the first was a survey of General Surgeon Practice, sent to all the members of General Surgeons Australia. Associations in response to opinion questions were reviewed for validity and subgroup analysis was performed for experience, technique and DT use. The second part was a Retrospective study of all incisional hernias carried out at a single center in Melbourne, Australia, over five years. Univariate and multivariate statistical analysis was then performed to analyze factors associated with poor outcome and DT use.

**Results**

735 surgeons were sent the survey with a 26.7% response rate. 12% routinely placed drains. 85% placed drains to reduce the risk of seroma. 47% believed DT increased infection risk. 78% believed there was insufficient evidence around DT use. 410 pts underwent IH repair over 5yrs with 75% not having a DT inserted. The patients in the DT group had a longer hospital stay (IQR, 6 days vs 2 days) (P<0.001) and had a higher rate of infection in the same admission (p=0.005).

**Discussion and conclusion**

There is insufficient evidence to show benefit with routine DT insertion and some detrimental effects secondary to their use. Discretion must be used with the DT insertion and not as a routine in IHR.

**PP 100 - Descriptive analysis of histology specimens of bladder cancers: 3-year experience in a tertiary care urology unit.**

**DGS Udayanga, PGN Ruvinda, LD Wickramasinghe  
NHSL, Sri Lanka.**

**Introduction**

Worldwide, bladder cancer is the 7th most commonly diagnosed cancer in male and 11th when both genders are considered. It's the 7th leading cause of cancer death in UK. Males are affected 4 times than females. 90% are Urothelial cancers while Squamous cell and Adenocarcinomas represent 5% and 2% respectively.

**Methodology**

Retrospective analysis of Histology reports on bladder chip specimens of patients who underwent Trans Urethral Resection of Bladder Tumour during 2016 to 2018 at Professorial Surgical Unit, Csth was performed. 64 reports were assessed. Repeated specimens (Re-TURBT) were excluded. Data analyzed with SPSS.

**Results**

56/64 of the patients were Male (7:1). Mean age was 61 years. (23 to 87). Majority (53%) were less than 65 years of age. 88% of the patients have presented with Haematuria and 9% had the diagnosis with imaging. 3% presented with obstructive uropathy. 96% of them were Urothelial Cancers. (56% Invasive and 40% Non-Invasive). 84% had Papillary Growth pattern. Average sample weight was 17g (SD=27.9). 81% of specimens had Detrusor muscle sample. Among Urothelial tumours, 39% were of high grade. 37% were pTa, 37% pT1 and 25% pT2. 15.6% of the tumours had Peri-neural invasion while 15% had Lympho-Vascular Invasion.

**Conclusion**

Bladder cancer affects the aged male population predominantly. Most are invasive high grade papillary urothelial cancers, with a significant proportion having perineural and lympho-vascular invasion at the time of diagnosis. Multi centered study with a large number of cases would provide a stronger evidence.

**PP 101 - Descriptive analysis of grinder cut Injuries presented to the accident service unit, Colombo South Teaching Hospital**

**DGS Udayanga, PGN Ruvinda. LD Wickramasinghe  
NHSL, Sri Lanka**

**Introduction**

Angle grinder is a common electrical tool used in construction industry as well as in household repairs. Accidents during the use of the instrument causes disabling injuries and affects economically productive population.

**Methodology**

Data collected from all the Patients admitted with grinder injuries to the accident service unit, Colombo south teaching hospital in two months (December 2016 and January 2017). 35 patients were assessed. History and demographic data obtained by interviewer administered questioner and details on injury pattern obtained from operative notes in BHT.

**Results**

All the patients were male and mean age was 40 (20 to 65). None of them has consumed alcohol during the time of injury. 2 of them has studied below grade 5, 28 up to O/L and 5 had University degrees. There is no statistically significant difference between educational level and injury frequency (P=0.06) Majority of the injuries were occupational (28/35). 20 out of 35 patients were cutting wood when the injury occurred. 19(54.3%) of them had muscle or tendon cuts and 12(34.3%) had bone cuts. Among hand injuries, 41%(7/17) has occurred in dominant side. Majority (30/35) has removed the protective guard of the rotating disc. 40% of them has had previous injuries and there was no significant difference in the frequency of injury with the work experience (p = 0.001)

**Conclusion**

Majority of these injuries could have being prevented by following manufacturer's recommendation thus more public awareness is needed. Modifications in the machine would also reduce the severity of the injury.

**PP 102 - Audit on female breast cancer surgery at a specialized breast surgery unit in National Hospital of Sri Lanka**

**T Rameshkumar**, L V Wanninayake, D Gunerathne, W P C D Priyadarshani, A de Silva

**Ward 6B/19, National Hospital of Sri Lanka**

**Introduction**

Surgical management of the breast and the axilla plays a major role in female breast cancer management

**Methodology**

A retrospective audit was carried out from the patient records at a surgical unit of National Hospital of Sri Lanka. Demographic details, surgical procedure and pathological characteristics were obtained using data extraction forms. SPSS used in data analysis.

**Results**

The study population is 76, mean age 58 years, 3 of them were below 40 years. 46% of the tumors were on left side. 21 (28%) had breast conservation surgery. 55 (72%) underwent mastectomy as the primary surgery and four had mastectomy after neoadjuvant treatment. Sentinel lymph node biopsy was done in 39 patients (51%) and of them 13 (33%) were positive. 79% were invasive ductal carcinoma and 7% invasive lobular carcinoma. The mean age of patients underwent mastectomy and breast conservation surgery respectively are 59 and 53 and the difference is significant ( $p < 0.05$ ). 19 (25%) were in stage IIA followed by 18 (24%) in stage IIB. There was no significant difference in the mean age between those who staged up to IIB and those beyond. Of those with stage up to IIB (52), 35 (67%) had undergone mastectomy. Of those who underwent breast conservation surgery initially, 6 had positive resection margins and 2 later underwent mastectomy.

**Discussion and conclusion**

Mastectomy is the commonly carried out procedure even in low stage tumours. Further studies are needed to correctly measure the rate of breast conservation surgery in early breast cancer and reasons for low uptake.

**PP 103 - Practice of peri-operative pain management in general surgical wards of a tertiary care hospital in Sri Lanka**

**M Achchuthan**, B L Perera

**National Hospital of Sri Lanka**

**Introduction**

Pain is the commonest complaint made by patients after an intervention. Pain-free state is possible to achieve in most circumstances. Multimodal analgesic management is recommended for optimum pain management. Due to various reasons, pain is not optimally managed in surgical wards after procedures. Our objective was to identify the peri-operative pain management practices in a tertiary care hospital.

**Methodology**

This was a prospective, descriptive study done at general surgical wards of NHSL. 196 patients from 1st December 2018 to 1st January 2019 who underwent surgery under general or spinal anaesthesia were included in the study. Pain felt during perioperative period was evaluated using interviewer administered questionnaires based on Brief Pain Inventory. Data was analyzed with SPSS software.

**Results**

The study included 25 emergency surgeries and 171 routine surgeries. Majority of the patients (70.92%) were satisfied with the overall perioperative pain management. 81.12% of the patients believed that pain must be accepted following surgery as a natural phenomenon and complete pain relief cannot be obtained. After complaining of pain only 39.69% patients felt complete relief from the medication provided to them subsequently.

**Conclusion**

Perioperative pain management in general surgical wards needs further improvement. There are multiple reasons for this issue which needs to be addressed to improve patient satisfaction and care.

**PP 104 - Hormone receptor and Her2/neu expression in female breast cancer and such association with clinico-pathological parameters**

**WPCD Priyadarshani**, T Rameshkumar,  
L V Wanninayake, R D S Gunarathna, A de Silva  
**National Hospital of Sri Lanka**

**Introduction**

Hormone receptor and Her2/neu expression status has prognostic and therapeutic value in determining surgical treatment. We aimed to study the pattern of expression of oestrogen (ER), progesterone (PR) receptors and Her2/neu and its clinicopathological associations in a series of female breast cancer cases at National Hospital of Sri Lanka.

**Methodology**

A retrospective survey was carried out on clinical and pathological data of all females who underwent breast cancer surgery in a surgical unit in 2018.

**Results**

Of the 124 patients, mean age was 57 years and 5 (4%) were below 40 years. ER and PR status were positive in 74% and 73% respectively and were significantly correlated with each other ( $p < 0.05$ ). Her2/neu receptor status was positive, equivocal and negative in 28%, 18% and 54% respectively. Triple negative, triple positive and hormone positive HER2/neu negative were 13%, 18% and 37% respectively. Of Nottingham Grade I, II and III tumours, ER positivity was 93%, 87% and 55% and PR positivity was 93%, 85% and 57% respectively and the difference was significant between Nottingham Grade I+II group compared to Grade III ( $p < 0.05$ ). Mean Ki67 index in ER positive and negative were 34% and 52% respectively, in PR positive and negative were 34% and 53% respectively, the difference is significant in both ( $p < 0.05$ ). There was no significant difference in receptor status with tumor size and age.

**Conclusion**

Hormone receptor status was significantly associated with tumor grade and Ki67 proliferation index. Expression of ER, PR and Her2/neu were comparable with the internationally reported values.

**PP 105 - Duration of pre-operative fasting of patients in general surgical wards of a tertiary care hospital in Sri Lanka**

**MAchchuthan**, B L Perera  
**National Hospital of Sri Lanka**

**Introduction**

Fasting is an essential part of pre-operative preparation, preventing aspiration of gastric contents by the anaesthetized patient. Researches have clearly proven that patients can take solids up to 6 hours, and clear fluids up to 2 hours before surgery. But in practice, patients are still fasting in excess, resulting in unnecessary discomfort and suffering. We aimed to identify the duration of fasting in a tertiary care hospital.

**Methodology**

This was a prospective, descriptive study done at general surgical wards of NHSL. 196 patients from 1st December 2018 to 1st January 2019 who underwent surgery under general or spinal anaesthesia, excluding the ones who had intestinal/gastric outlet obstruction were included in the study. Interviewer administered questionnaires were used and data was analyzed with SPSS software.

**Results**

Duration of fasting was evaluated in 196 patients. The study included 25 emergency surgeries and 171 routine surgeries. The mean duration of fasting for emergency surgeries for clear fluids and solids were 11.71 and 16.47 hours respectively. The mean duration of fasting for routine surgeries for clear fluids and solids were 9.76 and 12.78 hours respectively.

**Conclusion**

The duration of fasting in general surgical wards is well above the recommendation. Fasting duration was higher in emergency surgeries. There are multiple reasons for this issue which needs to be addressed to improve patient satisfaction and care.

**PP 106 - Evaluation of risk factors and presentation of female breast cancer: a hospital based survey at National Hospital of Sri Lanka in 2018**

**R D S Gunarathna**, T Rameshkumar,  
W P C D Priyadarshanie, A de Silva  
**National Hospital of Sri Lanka.**

**Introduction**

Breast cancer is the commonest cancer affecting women worldwide with significant morbidity and mortality. There are several modifiable and non-modifiable risk factors attributing for the development of breast cancer.

**Methodology**

A retrospective evaluation of risk factors and presenting complaints of 96 female breast cancer patients was carried out from a registry of a surgical unit in 2018 at National Hospital of Sri Lanka. Frequencies and percentages of the variables were calculated using SPSS.

**Results**

The mean age of the population was 57.9 years. Mean age of menarche was 13.2 years, and 46.7 had reached menopause after 50 years. 14% were nulliparous. Family history of breast cancer was seen in 11 (12%), 8 and 3 in a first and second degree relative respectively. 30.8% had the age at first child birth >25 years. The use of hormones, oral contraceptive pill, depo-medroxyprogesterone acetate and hormone replacement therapy were 7.5%, 5.4% and 1.1% respectively. The commonest presenting complaint was a lump in the breast (94.8%) and the least common way of presentation was detection by screening (3.5%). 30% had mastalgia during presentation. Only 45.7% presented to medical care within 1 month of onset of symptoms. Interval between onset of symptoms and presentation was not significantly associated with age, family history of breast cancer and size of the tumour.

**Conclusion**

We identified a significant delay in presentation to medical care from the onset of symptoms. Further studies are required to identify the factors leading upto this delay for effective intervention to reduce it.

**PP 107 - Sri Lankan surgical articles published in indexed journals from 1970 Jan – 2019 May: systematic review of literature**

**Dakshini Egodawatte**, Hiran Amarasekara  
**Colombo East Teaching Hospital, Malabe, Sri Lanka**

**Introduction**

The aim of this systematic review of literature was to quantitatively and qualitatively evaluate journal articles in surgical specialties originating from Sri Lanka during the period of 1st Jan 1970 to 14th May 2019; Published in indexed medical journals.

**Methodology**

We searched the PUBMED data base for all surgical articles published during the above period in indexed medical journals. All articles published in English language with the words Sri Lanka or Ceylon appearing in the title, author affiliation, study centre, or the abstract were included. Articles that were non medical, animal studies and selected surgical fields such as Maxillofacial/dental surgery and Obstetrics and Gynaecology were excluded. Using a data extraction form we manually analysed final article count for the title, published year, journal name, study design, author affiliation and study centre.

**Results**

The final search strategy revealed a total of 405 articles published in 70 journals. Study designs ranged from case reports to RCT s. There were a total of 30 centers from Sri Lanka conducting surgical research. Number of surgical articles published in each decade was 35 (1970-1979), 13 (1980-1989), 35(1990-1999), 58 (2000-2009), 105 (2010-2019).

**Discussion and conclusion**

Most number of articles was published in the CMJ (Ceylon Medical Journal). There was a progressive increase in publications in each decade showing an increase in research activity within Sri Lanka. However most studies appear to be case reports and case series with minimal RCTs. We recommend more RCTs to answer specific research questions for surgical conditions prevalent in Sri Lanka.

**PP 108 - Efficacy of intra-articular steroid injection in managing joint pain in a local population of Colombo East**

**Dakshini Egodawatte, Hiran Amarasekara**

**Colombo East Teaching Hospital, Malabe, Sri Lanka**

**Introduction**

Intra-articular (IA) steroid injections are often used for pain relief in patients with joint pain. The purpose of this study was to evaluate the efficacy of IA steroid injections in patients who presented with joint pain

**Methodology**

All patients who presented to the orthopedic clinic at Colombo East Teaching Hospital from November 2018 to May 2019 were included in the study. All patients were prescribed a standard regime of anti inflammatory medication 6 weeks prior to the injection. IA 80 mg Methylprednisolone acetate and 0.5% Bupivacaine 10ml were given to all patients. Pain was evaluated using the Numeral Rating Scale (NRS) at pre-injection and post-injection, 0-6 hours , 6-24 hours, 3rd , 7th , 14th Day, 6 weeks and 3 months following the procedure. A standard post-injection analgesic regime was given for 5 days.

**Results**

A Total of 28 patients were evaluated, 25 females: 3 males. The average age was 54.9 (Range 24-74). The knee joint (57.14%), hip (25%), shoulder (14.29%) and ankle (3.57%) were commonly affected joints. The majority of patients showed improvement in the NRS pain scores with a drop of 4 points from the baseline scores at 6 weeks.

**Discussion and conclusion**

Findings show significant efficacy for short-term relief of pain following IA steroid injection without the need for additional NASID therapy. Immediate pain relief was noted in all patients compared to pre injection pain score. Maximum pain control was seen within six weeks with a slow rise thereafter.

**PP 109 - Presence of fatty liver disease leads to unusual rise of liver enzymes in patients with common bile duct colic – prospective study**

**C S Ekanayake, L Paranehewa, D Ediriweera,**

**R C Siriwardana**

**Department of Surgery, Colombo North Teaching Hospital, Sri Lanka.**

**Introduction**

Common bile duct (CBD) stones lead to rise in liver enzymes. We made a clinical observation of unusual rise in liver enzymes in selected patients. Fatty liver disease (FLD) was hypothesized as the possible cause.

**Methodology**

42 Patients presenting with biliary colic diagnosed by clinical, radiological and biochemical criteria were selected for the study. Presence of fatty liver was identified by ultra sound scan and the macroscopic appearance during surgery. Endoscopic retrograde cholangio-pancreatography was offered on clinical grounds. Liver enzymes, inflammatory markers and bilirubin levels were measured upon initial contact, in acute stage on demand and first follow up visit usually after 2weeks.

**Results**

Out of 42 individuals, 31 (73.8%) were females. There were 22 (52.3%) patients with FLD. Median (IQR) body mass index was 26.9 (24.1 – 30.8) in fatty group compared to 25.7 (23.5 – 26.2) in others. Individuals with FLD showed high peak AST (558.5 vs. 247.0, p = 0.005), ALT (467 vs. 228.5, p = 0.005) and bilirubin (3.8 vs. 2.2, p = 0.015) levels compared to those without FLD.

According to multiple linear regression models, high AST and ALT levels showed significant associations with presence of fatty liver after adjusting for age, gender, BMI, amylase and CRP levels. The median enzyme level at two weeks was within normal in all cases.

**Discussions and conclusion**

Presence of FLD causes unusual rise in liver enzymes (AST, ALT) in patients with CBD stones. This rise is transient.

### **PP 110 - Multi-disciplinary approach to a major hepatectomy in a high risk patient with myasthenia gravis: a case report**

**Unani Yasanthika**, Bhaagya Gunethilake, Rohan Siriwardana, Janaka Waidyarathne, Janaki Dissanayake

**University Surgical unit, Ragama, Sri Lanka**

Myasthenia gravis (MG) is an autoimmune disorder affecting postsynaptic acetylcholine receptors. Thymomas are reported in 10% to 15% of patients with MG (1). The liver is the second most common extrathoracic site of metastases (2) for which the treatment of choice is liver resection (3). Myasthenic or cholinergic crises requiring prolonged periods of ventilation are major causes of poor outcome following major surgery under general anaesthesia (4).

This is a case report of a 44-year-old female with MG undergoing major liver resection for secondary liver deposits of malignant thymoma. Major concerns were the risk of perioperative crises as she had been ventilated for 6 episodes of respiratory failure and had also suffered a cardiorespiratory arrest in the recent past. Anticholinesterases, immunosuppressant and regular plasmapheresis were continued preoperatively. A balanced anaesthesia technique was used. A single dose of non-depolarizing neuromuscular blocker was used to facilitate surgical access. Bupivacaine infusion via a thoracic epidural catheter and intravenous remifentanyl were used to provide analgesia.

Pharmacological neuromuscular reversal agents were avoided. The patient was extubated in the operation theatre. The postoperative stay was uncomplicated. This case illustrates that major abdominal surgery could be carried out in a complex case of MG using balanced anaesthesia with thoracic epidural analgesia while avoiding the use of anticholinesterases and anticholinergic drugs. By utilizing a customized multidisciplinary approach it was possible to avoid myasthenic or cholinergic crises and postoperative ventilation.

### **PP 111 - Alcohol ablation of cystic thyroid nodules - case series**

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Department of Radiology CSTH Kalubowila, Sri Lanka

#### **Introduction**

Alcohol ablation is a well-established treatment modality for cystic thyroid nodules. Even though it is not a common modality use in Sri Lanka. We are presenting five cases of benign thyroid nodules treated with alcohol under Ultra Sound Guidance (USG), using fine needle puncture.

### **Case report**

Five patients were referred for treatment. Among them four were females and one male. All patients were under went FNAC and confirm that they are Thy 2(Benign) nodules. All were not willing to undergo surgery. Among them Two nodules are seen in right side and three are in left side. After ultra sound assessment, four patients were treated with 1/2 to 2/3 of 100% alcohol volume after aspiration the nodule under the ultrasound guidance. Other patient had a large cyst (80-90ml) so that multiple aspiration followed by alcohol injection of 10-20ml at each time. After reduced the size, treated according to the previous regime. These were done by using 23 G needles.

### **Discussion**

After ablation, they showed significant reduction in size and cosmetically 100% resolution in all five patients after short period. No complications in four patients except for the patient with largest nodule. After the last ablation he developed gaseous distension of the cyst, soft tissue emphysema high CRP with fever. It settled after incision and drainage. All the samples were sterile. This is a safe, effective and low cost modality which requires the minimum amount of facilities and negligible procedure related morbidity.

### **PP 112 - A mobile app harnessing open source utilities to enhance hepatopancreaticobiliary database management**

**Malaka Jayawardene**, M S Nandasena, A Arulprashanth, S Iddamalagoda, N Harivallavan, B D M R Chandragupta, H S L Perera, A A Pathirana

**Department of Surgery, University of Sri Jayewardenepura, Sri Lanka**

#### **Introduction**

Electronic Clinical Database Management (eCDM) is an element deficient in the health sector of Sri Lanka. HPB Division of our unit used to maintain data on a Google Sheet® which had several deficiencies. The aim was to find a solution that provided a method to maintain data in a retrievable format for statistical analysis, while allowing multiple team members to update the database.

#### **Methodology**

Using cloud based Google services and AppSheet®, a mobile app was developed to store HPB data. Consent was obtained from patients to maintain clinical data through the app using mobile devices of team members. Data recorded using the app was compared with the previous database in terms of completion of data and retrievability of data for analysis.

## Results

A single team member was dedicated for the previous database management, while all 9 team members contributed to maintain the new database across different stages of patient's management. The app recorded 254 variables out of which 222 were statistically analysable (87.4%). The previous database had recorded only 78 variables out of which 15.3% were statistically analysable. Over the first 6 months of the app's usage, data of 407 patients were stored. Eight entries had incomplete data (1.9%). Data incompleteness rate of the previous database was 21.9% ( $p=0.00001$ ).

## Conclusion

HPB Database App developed using open source utilities provided an efficient and credible eCDM solution that allowed storing more statistical data with a higher data completion rate while eliminating the need of a dedicated database manager.

### **PP 113 - Evaluation of spinal injuries admitted to tertiary care surgical centre in Sri Lanka with falls from height** **UVP Madhuwantha, G P Disanayake, G Wickramaratne** **Surgical unit PGH Badulla, Sri Lanka.**

## Introduction

Spinal fractures are common admissions from falls from heights that range from a minor soft tissue injuries to spinal cord injury and death. We conducted an observational study to find out mode of injury and association between age, sex and height of injury and neediness of surgical interventions

## Methodology

Data of 10 patients admitted with above criteria were analysed between 01.02. 2019 to 30. 03. 2019 and association between sex and injury pattern and age and injury pattern analysed.

## Results

The age ranged from 17y to 67y with a median of 51y and there is a significant association with age and injury pattern ( $T=2.602$   $P=0.032$ ) and 90% of them were males and 10% female. There was no statistically significant association between sex and injury occurrence ( $\chi^2=0.123$   $p=0.725$ ). The height ranged from 5 feet to 25 feet with a median of 10 feet. Of the aetiology 50% had fallen from trees 30% from roof and 10% from staircases and 10% at workplace (paddy field). Of the 10 patients 8 sustained spinal fractures with 2 needing surgery while 2 patients did not have fractures.

## Discussion and conclusion

There is a significant correlation with age and injuries whom belong to productive age group and indicates an urge for preventive measures. There is no association between sex, height of fall with the spinal fractures statistically and more data are required to further inferences and to initiate preventive measures.

### **PP 114 - Practice of post-operative resumption of feeding of patients in general surgical wards of a tertiary care hospital in Sri Lanka**

**MAchchuthan, BL Perera**

**National Hospital of Sri Lanka**

## Introduction

Post-operatively patients should be recommenced feeding as soon as possible. According to ERAS guidelines fluids should be given soon after surgery and normal diet within 1 day of surgery, after considering other factors like vomiting and patient comorbidities. But in practice it is being delayed due to various factors. We aimed to identify the factors causing such delay in a tertiary care hospital.

## Methodology

This was a prospective, descriptive study done at general surgical wards of NHSL. 196 patients from 1st December 2018 to 1st January 2019 who underwent surgery under general or spinal anaesthesia, excluding the ones who had intestinal/gastric outlet obstruction were included in the study. Interviewer administered questionnaires were used and data was analyzed with SPSS software.

## Results

Duration of fasting post-operatively was evaluated in 196 patients. The study included 25 emergency surgeries and 171 routine surgeries. The mean duration of fasting following emergency surgeries for clear fluids and solids were 15.68 and 43.06 hours respectively. The mean duration of fasting following routine surgeries for clear fluids and solids were 7.50 and 18.27 hours respectively. 31.39% patients were delayed feeding anticipating vomiting only.

## Conclusion

The delay in feeding postoperatively in general surgical wards is well above the recommendation. Delay was greater in emergency surgeries. There are multiple reasons for this issue which needs to be addressed to improve patient satisfaction and care.

**PP 115 - Laparoscopic trans-cystic exploration and clearance of common bile duct (CBD) stones with rigid ureteroscope.**

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C N S Dissanayake  
**NHSL, Sri Lanka**

**Introduction**

Approximately 10-15% of gallstones is associated with choledocholithiasis. The new single stage laparoscopic technique is designed to address both CBD stones and gallstones simultaneously.

**Methodology**

A descriptive study was carried out on patients who have undergone trans-cystic exploration of CBD with rigid ureteroscope at teaching hospital Ratnapura from January 2016 to January 2019. After dissecting the Calot's triangle, a transverse incision made in the cystic duct. Rigid ureteroscope was introduced via an additional 5mm port which was inserted in right 7th intercostal space just lateral to mid-clavicular line. The CBD was directly visualized and stones extracted with dormia basket, the larger stones were crushed with pneumatic lithotripter. After clearance of CBD, laparoscopic cholecystectomy was completed. Preoperative clinical, biochemical, radiological assessment and post-operative complications were studied.

**Result**

Altogether eleven patients were included with average age of 54 years. All had elevated level of direct bilirubin with radiologically confirmed CBD stones. The maximum diameter of the stone was 10mm. There was no need of T-tube drain or conversion to open exploration. There were no cases of bile duct injury. There was no chest complications apart from small pleural effusion developed in one. The average post-operative stay was 5 days.

**Discussion and conclusion**

Even though larger stones can be crushed with a pneumatic lithotripter and extracted; this surgery is ideal for smaller stones less than 5mm. Laparoscopic cholecystectomy is done at the same time to avoid a second surgery. There were no additional complications and the technique is practically applicable with expert laparoscopic skills.

**PP 116 - Characteristics of MB accidents and their injury pattern: single center experience**

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GHM Dayarathne  
**Accident service-Colombo south teaching hospital,**  
**Sri Lanka**

**Introduction**

Victims of motor bike accidents(MBA) were increasing. Identification of their characteristics and injury pattern is helpful in preventing them as well as managing the patients.

**Methodology**

A prospective study was conducted in the accident service of Csth from 1/2/2019 to 31/3/2019. Characteristics of the victims and their injury patterns were analyzed.

**Results**

From 164 patients, there were 88.4% (n=145) males and 11.6% (n=19) females. There were 82.3% (n=135) riders and 17.7% (n=29) pillion riders. Among the riders, 43.7% (n=59) were under 26 years. 10.4% (n=14) were aged 18 years or less. 11.1% (n=15) riders were under the influence of alcohol. 13.3% (n=18) not had a licence to ride MB. 20% (n=27) were riding over 60 km/hr. 60.7% (n=82) of accidents due to collision with another vehicle. There were 17% (n=23) two MB collision and 14% (n=19) MB-three wheel collisions. Majority of incidents (27.4%) were reported between 3pm-7pm. 9.8% (n=16) weren't wearing headgear. 15.2% (n=25) had head injuries and among them 2.4% (n=4) were cerebral contusion or haemorrhage and 6.7% (n=11) were skull fractures. 7.9% (n=13) had rib fractures and 1.8% (n=3) complicated with pneumohaemothorax. 1.8% (n=3) had abdominal organ injury. 1.2% (n=2) had vertebrae fractures. 30% (n=50) had upper limb injuries and among them majority (10.9% ,n=18) had forearm bone fractures and 4.9% (n=8) had fractures in the hand.

45.1% (n=74) had lower limb injuries, and majority of them (20.1%, n=33) had foot fractures and 9.8% (n=16) had long bone fractures.

**Conclusion**

Under-aged, alcohol, high speed and not having license to ride are among the preventable causes of MBA. Upper and lower extremities were commonly injured. Economically productive young males were mostly affected.

## **PP 117 - Standardized protocol can improve the error in inward urine output measurement – an audit cycle**

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**Professorial Surgery Unit, NCTH, Ragama, Sri Lanka**

### **Introduction**

Accurate measurement of urine output (UOP) is vital in critically ill. UOP is usually measured by caretakers. We observed that these readings were inaccurate. An audit cycle was carried out to develop and evaluate a standardized protocol to measure UOP.

### **Methodology**

Pre-audit assessment (group A, n = 25) was done in evaluating, individual's ability in measuring and record keeping, characteristics of the measuring container and error of measurement. Subsequently protocol was prepared focusing on standardizing process of measurement, education of the patient and correction of device. Cycle was completed (group B, n = 25) comparing the error of measurement as outcome.

### **Results**

Caregiver performed measurement in majority (A = 91.3% and B = 95%). Before the standardization 4.3% of group A and 10% of group B had inadequate knowledge on numbers and 65.2% and 45% had difficulty in reading while All had writing skills. Appropriate containers were used by 13% in A and 15% in B before standardization. Group A had 87% of patients with over 50 ml error. After standardization group B had 10% patients with over 50 ml error of measurement (p<0.001)

### **Discussion and Conclusion**

Errors in measurement of urine in ward is common. This can be overcome by standardized measuring protocol.

## **PP 118 - Role of biopsy and radiological investigations in diagnosis of pediatric solid tumors.**

**N Kumarasinghe, V J Meegoda, K W S M Wijayawardhana, W D T A Mahathanthila, T D Munasinghe, B P Bright, U Perera, N Wijekoon, S A Gunaratne**

**Faculty of Medicine, University of Colombo, Sri Lanka**

### **Introduction**

Childhood cancers form a specific entity of tumors which differ markedly in clinical behavior, histology and site of origin. Statistics regarding accurate diagnostic modalities in pediatric solid tumors are minimal in Sri Lanka.

### **Objective**

To evaluate the role of biopsy and radiological investigations in diagnosis of pediatric solid tumors in Lady Ridgeway Hospital (LRH).

### **Methodology**

An institutional based retrospective study using data available from 2016 to 2018.

### **Results**

Out of 208 patients with solid tumors, biopsy had been performed in 107 (51.4%) while surgical resection was done in 76 (36.5%). Resection margins were clear in 49% of the cases while lymph node resection had been performed in 16.7%. According to the final histological diagnosis 40 (19.2%) patients were diagnosed with neuroblastoma, 37 (17.8%) with nephroblastoma, 23 (11%) with hepatoblastoma, 27 (12.9%) with lymphoma and 10(4.8%) patients with small blue cell tumors. Majority of the patients had undergone at least one modality of radiological investigation. CT was the most common radiological methodology used by over 138 (66.3%), while ultrasound scan was used by over 106 (51%) and MRI by 37 (17.8%).

### **Conclusion**

Biopsy had been performed in more than half of the population and a majority had undergone radiological evaluation. Surgical resection and/or chemotherapy had been given to patients.

## **PP 119 - Short term outcome of inguinal hernia repair; single surgical unit experience NHSL Colombo**

**Dr Chathura Karunathilake, Dr Duminda Ariyaratne, Dr Hashini Vithanage, Dr B G K Nadeera, Dr Dilshan Fernando**

**National Hospital of Sri Lanka, Sri Lanka**

### **Introduction**

Inguinal hernioplasty is common General surgery with good outcome. It has complications seen in immediate and early postoperative period.

### **Methodology**

A prospective descriptive study was conducted at ward 27, National hospital of Sri Lanka from 2017.08.01 to 2018.02.28. Male patients who undergone mesh repairs for inguinal hernia were assessed postoperatively on discharge, at 2 weeks and 3 months. All had prophylactic antibiotic and pain control according to WHO guidelines.

## Results

There were 88 patients undergone mesh repair, 27(30.7%) ASA-I and 61(69.3%) ASA-II. 85(96.6%) underwent elective surgery and only 3(3.4%) underwent emergency for obstructed hernia. The mode of anaesthesia; General 12(13.6%), Spinal 62(70.5%) and Local 14(15.9%). 21(23.9%) had bilateral hernia and 67(76.1%) had unilateral. 79(90.0%) had open surgery and 5(5.7%) of them underwent orchidectomy. 9 with bilateral hernia underwent laparoscopic repair; 7(7.8%) TAPP-transabdominal pre-peritoneal and 2(2.2%) TEP-totally extra-peritoneal except obstructed hernia 61(69.3%) had intermittent pre-op pain score 2-4/10. Post-op pain score was on D 3-4/10 76(86.4%), at 2 weeks 2-3/10 24(27.3%), at 3 months 2/10 6(6.8%). Age >70 group 2(2.3%) had acute urine retention. 7(7.8%) had surgical site hematoma which managed conservatively. 3 had surgical site infection and 1 underwent mesh removal in open surgeries. 17(19.3%) had Paraesthesia over ipsilateral inguinal and hemiscrotum. No recurrence was reported at 3/12 months.

## Discussion and conclusion

Mesh repair for the inguinal hernia has few complications. Minimizing the complications we have to improve the surgical techniques, increase number of laparoscopic repair. Patients' awareness of long standing inguino-scrotal hernia would be prevented orchidectomy.

### **PP 120 - Open retro pubic prostatectomy in benign prostatic hyperplasia(bph); an invaluable alternative to endourology in a peripheral general surgical centre**

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**Colombo East Base Hospital, Mulleriyawa New Town**

## Introduction

Open Prostatectomy remains a definitive mode of treatment in selected population of men with large prostatic burden (>80-100g). However its role in the surgeon's armamentarium is declining as a result of novel endourology. We retrospectively analyzed patients who underwent open retropubic prostatectomy for BPH in a peripheral center which lacks endourology facilities.

## Methodology

We performed a retrospective study in 17 patients who underwent open prostatectomy at our institution during past two years. Patients with severe International Prostatic Symptoms Score (IPSS)(25-30) were opted for surgery. Nevertheless, they were given the choice to select between open vs transurethral resection after explaining benefits and

drawbacks of both procedures. Patients were evaluated clinically and radiologically in terms of IPSS score, post voidal residual urine volume and prostate volume. Additionally, overall hospital stay and post op complications were assessed.

## Results

The mean age of patients analysed was 68.4+/-15 years. The mean prostate volume of those cohort of patients was 60 g. The preoperative baseline IPSS score improved from a mean of 27 to a mean of 9.7 postoperatively within a week. The average hospital stay was 7.5 days. Except one histology report which revealed an adenocarcinoma others showed features of BPH. One patient who developed severe haematuria warranted blood transfusion.

## Discussions and Conclusion

Open retropubic prostatectomy is imperative in BPH patients with higher prostatic burden. Furthermore, it's a safe alternative to endourology from a general surgeons perspective when facilities are lacking.

### **PP 121 - Foam sclerotherapy as the sole treatment strategy for symptomatic and complicated varicose veins which are secondary to Long Saphenous Vein (LSV) reflux - a unit experience at TH Galle.**

**S S Abeywickrama, R Ubayasiri, P M Lambiyas, J Sanjeyan, U De Silva**

**TH Karapitiya, Sri Lanka**

## Introduction

Symptomatic and complicated varicose veins are at a rise in prevalence and commonly secondary to LSV reflux. Minimally invasive treatment strategies are becoming increasingly popular replacing open surgical methods. Foam sclerotherapy using sodium tetradecylsulphate is a non-tumescend, non-thermal, minimally invasive technique and is used usually as an adjuvant therapy with other methods. It is significantly cheaper when compared to alternatives (especially compared to laser ablation) and has a low adverse effect profile. However its therapeutic efficacy has not been thoroughly assessed as the sole mode of treatment in our setup.

## Methodology

Retrospective analysis of prospectively collected data of 90 patients who have undergone foam sclerotherapy as the sole intervention for Symptomatic and Complicated varicose veins secondary to LSV reflux at our unit from 01.01.2016 – 31.12.2018. LSV Occlusion rates were assessed by a post

operative venous duplex study done at 2 months post procedurally.

## Results

The Study Population consisted of 90 patients ( 69 females , 21 males ) and postoperative LSV occlusion rate was 84/90 (93 % ).No major complications were reported.

## Discussions and Conclusion

Short term therapeutic efficacy of foam sclerotherapy is non inferior to endo venous laser ablation (90 –100% in literature) (1) . However its long term efficacy should be assessed and this study should be expanded to a larger study population in order to increase the power of data.

### PP 122 - A study on deficiencies in surgical logbook maintenance and provision of a solution

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## Introduction

Surgical Logbook maintenance is an essential part of postgraduate surgical training. Due to failure in daily maintenance of data, trainees are compelled to extract data from registers in the operation theatres and endoscopy rooms. This results in trainees presenting subpar logbooks with inaccurate and incomplete data. The aim was to come up with a free and practical solution to this problem.

## Methodology

A Google Sheet® was created with the appropriate table and column structure for the logbook. AppSheet® web platform was used to create a mobile app based on the Google Sheet to allow the trainee to enter data through a graphical user interface enabling editing and updating patient data. Options to obtain printouts of the logbook pertaining to PGIM standards and automated analysis of logbook data were also included in the app. A workshop was held to introduce this to the surgical trainees and a manual containing steps to create the app was distributed. An evaluation was done 1 month after the use of the app.

## Results

25 surgical trainees attended the workshop. Prior to the workshop only 27.3% were maintaining a logbook daily, and

this figure increased to 81.9% after introducing the app. All users found the app to be user-friendly compared to the previous method of logbook maintenance.

## Conclusion

This method provided a free, efficient and practical platform to maintain an online logbook enabling and promoting trainees to update the database on a daily basis. It also provided a credible and analysable personal surgical database.

### PP 123 - Analysis of triple negative breast cancer (TNBC) patients and its correlation with tumor stage, Nottingham grade and node status

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**National Cancer Institute Maharagama, Sri Lanka**

## Introduction

Triple-negative breast cancers, especially basal-like subtypes, have bad prognoses. In this study, we wanted to correlate Tumor stage, Grade and Node status in TNBC patients.

## Methodology

Descriptive study of 156 invasive breast carcinoma patients operated for a period of one year at National Cancer Institute Maharagama. Data (Histopathology) were analyzed using IBM SPSS Statistics Software 20.

## Results

Our study had a total of 156 breast cancer patients and the distribution according to gene expression profile revealed that, Luminal A, Luminal B, TNBC and Her2/Neu subtypes were 51.9%, 13.5%, 25.6% and 9%, respectively. Out of the 41 TNBC cases 15 (36%) cases were younger than 50 years of age. TNBC Patients were found to have a significant association with higher NG (  $\chi^2$  value 34.08,  $p \leq 0.001$ ) and lymph node positivity (  $\chi^2$  value 16.71,  $p \leq 0.001$ ) .Of all the triple negatives 85% had Ki 67 expression  $\geq 20\%$ .. Around 65% of TNBC belong to Tumor Stage T3 and T4.

## Conclusion

Subtypes of breast cancer distribution and TNBC association to higher Nottingham grades, T stage and increased nodal involvement as well as higher proliferative index are in accordance to literature. However age distribution showed discrepancy. This group can cause early metastasis and expected survival is usually short and hence the need to focus on new treatment strategy modalities.

**PP 124 - Cost effectiveness of foam sclerotherapy as the sole treatment strategy for symptomatic and complicated varicose veins which are secondary to long saphenous vein (LSV) reflux - an economic evaluation at TH Galle.**

**SS abeywickrama, R Ubayasiri, J Sanjayen, U de Silva  
TH Karapitiya, Sri Lanka**

Introduction Symptomatic and complicated varicose veins are at a rise in prevalence and commonly secondary to LSV reflux. Minimally invasive treatment strategies are becoming increasingly popular replacing open surgical methods. Foam sclerotherapy using sodium tetradecylsulphate is a non-tumescend, non-thermal, minimally invasive technique and is used usually as an adjuvant therapy with other methods. It is significantly cheaper when compared to alternatives (especially compared to laser ablation) and has a comparable effect profile. Its therapeutic efficacy is non inferior to rest of the minimally invasive techniques at least in short term.

**Methodology**

Economic evaluation was done using charges of leading private hospitals in Galle

**Results**

The Study Population consisted of 90 patients (69 females, 21 males) and postoperative LSV occlusion rate was 84/90 (93%). No major complications were reported. Approximately LKR 4,500,000.00 of money was saved by offering Foam as the sole mode of therapy instead of endovenous laser ablation.

**Discussion and Conclusion**

Short term therapeutic efficacy of foam sclerotherapy is non inferior to endovenous laser ablation (90 – 100% in literature) (1). However its long term efficacy should be assessed and this study should be expanded to a larger study population in order to increase the power of data. However it could save a significant amount of money to health sector if offered properly.

**PP 125 - Outcome of Infrainguinal bypass surgery with autologous vein graft for peripheral vascular disease**

**PM Lambiyas, R Ubayasiri, S S Abeywickrama, U De Silva,  
J Sanjayen**

**Vascular Unit, Teaching Hosital Karapitiya, Sri Lanka**

**Introduction**

Patients with lower extremity PVD and critical limb ischemia need revascularization. Infrainguinal bypass surgery with

autologous venous graft is a durable method for chronic limb threatening ischemia. But the surgery carries the high rate of post-operative mortality and morbidity. Pre-operative comorbidities contribute heavily on outcome of these patients.

**Methodology**

Retrospective analysis of patient who underwent infra-inguinal bypass surgery was analyzed. Data collected from January 2018 to April 2019. All Surgeries were performed in vascular unit teaching hospital Karapitiya. All patients who underwent surgery with autologous venous graft were included. Patient assessment done prior to surgery with duplex ultrasound scan. In hospital mortality and morbidity were assessed.

**Results**

Total number of 75 Infrainguinal bypasses was performed. Femoro popliteal bypass (n=50). Polital distal bypass (n= 25). Male (n=44). Female (n=31) (P=.175) no significant gender difference. Mean age 66.32 years (SD=10.43). 5 patients (6.6%) expired during postoperative period. 4 patients (5.33%) needed graft embolectomy and 9 patients (12.5%) ended up with amputations.

**Conclusion**

Proper assessment and optimization of comorbidities will improve outcome of bypass patients. Close monitoring during postoperative period can identify bypass graft failure and timely action can be undertaken.

**PP 126 - Tumor Size and its relationship to hormone receptor Status and proliferative activity in breast Cancer catients at a tertiary care center**

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W M S B Thilakarathna, G K S De Silva**

**National Cancer Institute Maharagama, Sri Lanka**

**Introduction**

Breast cancer is the most common cancer in women. Treatment responses are variable depending on tumor morphological characteristics, clinical characteristics, and hormonal receptor levels. We intend to study tumor size relationship to hormone receptor status and proliferative activity.

**Methodology**

Descriptive study of invasive breast carcinoma patients operated for a period of One year at Cancer Institute Maharagama. Data (Histopathology) were analyzed using IBM SPSS Statistics Software 20.

## Results

A total of 156 cases of Invasive Breast cancers were studied and mean age was 55.02 years. The peak age group was 41-50 years (30%). T stage distribution (TNM Classification) was found to be 26.9%, 48.7%, 11.5% and 12.8%, in T1, T2, T3 and T4, respectively. Most of the patients (97.4%) had Invasive ductal carcinoma. Breast conservative surgery (BCS), mostly among younger patients ( $\leq 50$  yrs). Around 70% of T4 stage tumors were lymph node positive. Estrogen (ER), Progesterone (PR) and Her2/Neu receptors were found to be positive among 40.62%, 35.77% & 18.69% patients respectively. T4 tumors were mostly found to be negative for all three receptors (70%). It was found that 80% of T4 & 66.6% of T3 stage tumors had a higher percentage of Ki 67 expression.

## Conclusion

Higher Ki 67 expression and negative hormone receptor status among higher T stage tumors indicates its proliferative and infiltrative nature. This helps in prognosticating and formulating an individualized management.

### **PP 127 - Proximal AVF predominates in venous access creation of Sri Lankan community**

**PM Lambiyas, R Ubayasiri, S S Abeywickrama, U De Silva, J Sanjayen**

**Vascular Unit, Teaching Hospital Karapitiya, Sri Lanka**

## Introduction

Patients who are having chronic kidney disease need lifelong renal replacement therapy. Since the introduction of Arterio-venous fistula from 1960, it has been the most popular method for hemodialysis. Sri Lankan population showed higher incidence of chronic kidney disease during last decade. Hence number of AV fistula procedure has risen. Significant number of patients was referred to teaching hospital Karapitiya for venous access.

## Methodology

This retrospective study assesses the AV fistula creation in Teaching hospital Karapitiya. Patients who had AV fistula formation since April 2017 to April 2019 were incorporated to the study. All patients undergo clinical and duplex ultrasound study to assess the suitable site for AV fistula creation. Most distal site assessed first for fistula formation in terms of vein caliber and artery quality.

## Results

Total number of 275 patients analyzed for study. Male  $n=144$ , (47.5%), Female  $n=131$  (52.2%) Mean age of AV fistula creation 54.47 years. (SD - 15.121) Mode =55. Radio cephalic fistula 67 (24.36%) Brachio - cephalic fistula 187 (68.1%). Brachio - basilic fistula 21 (7.63%). There are 23 (8.36%) primary AV fistula failures which need revision.

## Conclusion

Mostly brachial vein at the cubital fossa selected due to small caliber vein at the wrist. Due to pre-operative duplex ultrasound scan primary outcome of AV fistula formation improved vastly.

### **PP 128 - Experience in laparoscopic live donor nephrectomy for kidney transplantation**

**PM Lambiyas, R Ubayasiri, S S Abeywickrama, U De Silva, J Sanjayen**

**Vascular Unit, Teaching Hospital Karapitiya, Sri Lanka**

## Introduction

Live donor kidney transplant is the most popular treatment option for patients with ESKD. Laparoscopic transperitoneal donor nephrectomy has become popular during last two decades due to its advantages such as less post-operative pain short post op stay, early return to normal activity and minimal scar.

## Methodology

Retrospective analysis conducted in vascular and transplant surgical department of teaching hospital Karapitiya. Since 2018 we are performing laparoscopic donor nephrectomy. Uncomplicated donors, left donor kidney, single renal artery, patients with BMI  $< 30$  are selected. All surgeries are performed by consultant vascular surgeon. Surgery performed in right lateral position with 4 port transperitoneal entry. Kidney delivered through Pfannenstiel incision. Peri-operative and post-operative morbidity, duration of surgery is assessed.

## Results

We have performed 13 laparoscopic live donor nephrectomies. Mean operative time 3 hours and 40 minutes (0:15) with the range of 3h:15min-4h:05min. Mean post-operative hospital stay was 2.15 (+/- 0.55) days. Warm ischemia time is more with laparoscopic procedure. None of above patients

had a major bleeding episode which need reopening. One patient needs conversion of laparoscopic procedure to open procedure due to damage accessory lumbar vein. Post-operative pain score (4 vs 6) is less with laparoscopic surgery compared to open procedure.

### **Conclusion**

Though the laparoscopic donor nephrectomy has many advantages to patient, operative time is more with laparoscopic surgery. When the vascular department increases its number of patients we will be able to reach the international standards.

### **PP 129- Knowledge of pre-operative fasting guidelines among health-care workers in general surgical wards of a tertiary care hospital in Sri Lanka**

**MAchchuthan, BLPerera**

**National Hospital of Sri Lanka**

### **Introduction**

Fasting is an essential part of pre-operative preparation. Patients are advised on fasting usually by the intern medical officers and nursing officers of the respective surgical wards. So, it is paramount that they are aware of the latest fasting guidelines. We aimed to assess the knowledge of pre-operative fasting guidelines among health-care workers in general surgical wards of a tertiary care hospital.

### **Methodology**

Interviewer administered questionnaires with 10 true/false questions based on European Society of Anaesthesiology (ESA) & American Society of Anesthesiologists (ASA) guidelines were used and data was analyzed with SPSS software. 23 intern medical officers (17.7%) and 107 (82.3%) nursing officers of general surgical wards in NHSL were included in the study. Questionnaires were marked and a score out of 10 was given.

### **Results**

Mean score of an intern medical officer was 6.57 and of a nursing officer was 5.64 out of 10. Of the study population 83.85% wrongly believed there was proven clinical benefit in the routine use of antacids, metoclopramide or H2-receptor antagonists before elective surgery in non-obstetric patients. Only 33.85% of the study population understood that standard solid fasting time may not apply after fatty food ingestion.

### **Conclusion**

The knowledge exhibited by the healthcare workers was not satisfactory. Updating the knowledge of healthcare workers will improve the practice of preoperative fasting and improve patient satisfaction and care.

### **PP 130 - Our experience in free microvascular phalloplasty in gender reassignment – female to male**

**I H D S Prasad, K Rajapaksha, D A Dissanayake,**

**T S Beneragama, D Perera**

**National Hospital Sri Lanka.**

### **Introduction**

Gender reassignment is becoming successful and popular in modern era among transgender people. It increases functionality and social acceptance though it poses great challenges to reconstructive surgeons. Successful creation of a phallus (penis) often needs major microvascular free tissue transfer techniques as single or multi-staged procedures.

### **Methodology**

This descriptive retro-prospective study evaluates 3 cases of phalloplasty, performed in our plastic surgical unit. Patients details recorded in registry were evaluated and followed up for one year after completion of all surgical procedures.

### **Results**

Two cases were done in 2016 and one in 2017. All were referred by psychiatrists after psycho-social and legal workup together with hormonal treatment, mastectomy and total salphingo-oophorectomy. All underwent radial forearm free tissue transfer for phalloplasty, one patient after staged urethral reconstruction with a oral mucosal graft. In one patient urethra was reconstructed at the time of definitive surgery and in the other it was abandoned due to difficulties of creating a tube in tube flap. Total vaginectomy was performed in two patients.

All free phalluses survived with good esthetic outcome and patient satisfaction was satisfactory. Single stage urethral reconstruction failed due to ischemia in the inner tube and perineal urethra was created. Staged urethral reconstruction was successful after repair of a urethral fistula.

### **Conclusion**

All our patients were contented with the appearance, size, length and sensation of the neo-phallus. We r willing to improve on urethra related complications. All the patients are looking forward for penile and testicular implants for erectile

function and better cosmesis.

### **PP 131 - Patient reported outcome measures for colorectal malignant surgeries- Initial experience**

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**University Surgical Unit, Colombo South Teaching Hospital, Sri Lanka**

#### **Introduction**

Patient reported outcome measures (PROMs) to assess quality of life following treatment has become the mainstay of outcome measurements in colorectal cancer management. The aim of this study was to present our early experience on the PROMs after colorectal surgeries.

#### **Methodology**

This was a prospective descriptive study. Patients who underwent colorectal surgery between March 2018 - February 2019 at University Surgical Unit, CSTD were included in this study. Enhanced Recovery After Surgery (ERAS) protocol was used in management of this cohort. Validated questionnaires were obtained from European Organization for Research and Treatment of Cancer Quality of Life (EORTC-QLQ). EORTC-QLQ C30 and QLQ CR29 were used in this study which were available in all 3 languages (English, Sinhala and Tamil). Data was collected from the patients at the first clinic visit after surgery.

#### **Results**

Thirty patients were included in this study. Sixteen were males. Average age was 65. Average global health status was 54%. Majority of patients (73%) had a physical activity score more than 70%. The average social activity score was 74%. Most of the patients had a poor score for sexual activity (16% - 30%). All the patients had fatigue to a lesser degree (16% - 30%). Pain, vomiting and diarrhea were less common.

#### **Conclusion**

PROMs can be used as a quality of life outcome measure in patients with colorectal cancers. It gives the idea to the clinicians about the functional status and symptoms of patients following surgery which will improve the future follow up and health care services.

### **PP 132 - Orthotopic deceased donor liver transplantation in Sri Lanka – descriptive analysis of a single centre experience**

**Buddhima Jayawickrama**, Vinojan Satchithanatham, Hyrin Arc, Gayan Bandara, Rezni Cassim, Mandika Wijeratne

**Professorial Surgical Unit, National Hospital of Sri Lanka**

#### **Introduction**

Orthotopic liver transplantation is the main treatment curative in intent for chronic liver disease. Management of complicated recipients, shortage of donor livers and challenges in critical care are the main draw backs in establishing a successful transplant programme.

#### **Methodology**

A descriptive retrospective analysis was performed on deceased donor liver transplantations at National Hospital from September 2017 to December 2018. The surgical outcomes, recipient and donor factors and surgical techniques were evaluated

#### **Results**

Ten deceased donor liver transplantations have been performed. Six of them had successful surgical outcome. All recipients had a MELD score of 15-25. Among recipients six had alcohol induced liver disease. Four had non-alcoholic steatohepatitis. Four were performed with conventional piggy-back technique; five with end to side and one with side to side venous anastomosis. Average graft cold ischaemia time was 4 hours in successful recipients. All the donor livers were from non regional centers. Six donors were aged between 30-50 years; others 50-60. Among the four mortalities two patients had primary non function; one had primary graft dysfunction and other succumbed to septic complications. All four donors had extended criteria with a donor risk index > 1.7.

#### **Conclusion and Discussion**

Liver transplantation is a challenge to surgical and critical care. Successful transplantation has a huge impact on quality of life of the recipients. Public and health sector awareness on organ donation with a systematic approach to prioritize and distribute organs is a necessity in order to enhance quality of donor grafts and success of surgical outcome.

### **PP 133 - Prospective evaluation of early complications after elective loop ileostomy**

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**Department of Colorectal Surgery, Oxford University Hospitals, United Kingdom**

#### **Introduction**

To assess early complications, readmissions and impact on patient's quality of life after elective loop ileostomy formation.

#### **Methodology**

Prospective study between October 2017 and August 2018 with three-month follow-up. Pre-operative patient's details, admission information, patient's stoma related quality of life and one-month follow-up by clinical review were recorded.

#### **Results**

Forty-nine patients underwent elective loop ileostomy. Mean age and BMI were  $52.9 \pm 16.0$  years and  $27.9 \pm 6.6$  kg/m<sup>2</sup> respectively. No surgical reinterventions were recorded because of early stoma related complications. Mean stoma output at discharge was  $738.8 \pm 396$  ml/day and 18/49 (37%) patients were discharged on loperamide. Eight patients were readmitted (17%) because of ileostomy related complication. Two of them were related to high output stoma. One with ICU admission (acute kidney injury) was discharged on 8mg loperamide, with a stoma output of 975 ml the day before discharge. Three other patients were readmitted with low stoma output, one of them because of high-dosed loperamide. At three-month follow-up, 12/37 (32%) patients were on loperamide and 32/37 (86%) patients reported nocturnal emptying. Twelve out of those thirty-two (38%) were on loperamide. The two most common reported factors impacting patient's quality of life were limitation in patient's choice of clothes and feeling less sexually attractive.

#### **Conclusion**

Patients with loop ileostomy can suffer considerable morbidity including high output, which can be life threatening despite acceptable output at discharge, and nocturnal emptying. Careful loperamide dosing at discharge and during follow-up can be one of the targets to further reduce morbidity.

### **PP 134 - A comparative study of chronic pancreatitis (alcoholic vs non-alcoholic)**

**BDMR Chandraguptha**, AA Pathirana, RGMS Nandasena, MD Jayawardene, B Dissanayake, HSL Perera, SA Piyarathna, S Iddamalgod, N Harivallavan

**Professorial Surgical Unit - Colombo South Teaching Hospital, Sri Lanka.**

#### **Introduction**

Chronic Pancreatitis (CP), is a debilitating disease, with alcohol being the predominant aetiological factor in the west. Studies describing the disease in Sri Lanka is sparse.

#### **Methodology**

Data of 123 consecutive patients diagnosed with CP from January 2017 to date, in a tertiary care center was retrospectively analyzed for etiology, presentation, complications and treatment methods. Comparison was made between Chronic alcoholic Pancreatitis (CAP) and Chronic Non-alcoholic Pancreatitis. (CNP).

#### **Results**

Patient demography represented seven provinces of Sri Lanka. Epigastric pain was the most common presenting complaint in both groups. 72 patients had CNP (58.5%). An aetiological factor was found in 18 (25%) patients with CNP. Mean Age was 47.5 and 37.6 in CAP and CNP respectively. There were no females with CAP, while male to female ratio was 1.5:1 in CNP. Endocrine failure was noted in 43% of CAP and 38.8% of CNP. Exocrine failure was seen in 15.6% of CAP and in 11% of CNP. Initial management was conservative in 9.8% of CAP and 20.8% of CNP. Endotherapy (+/- ESWL) was the predominant method of intervention in both groups.

#### **Conclusion**

Majority of patients had CNP, of which many had no identifiable aetiology. Mean age of CNP was lower. However, there was no significant difference in the gender, presence of endocrine and exocrine insufficiency and mode of initial management between the two groups.

**PP 135 - Extremity bypass surgeries performed during the period of five years from 2014 to 2018 by Department of vascular and transplant surgery**

Sanjeyan J, R Ubayasiri, L Prageeth, Sachith A, Kapilan G, Saseekaran B, U D Silva

Teaching hospital Karapitiya, Sri Lanka

**Introduction**

Extremity bypass surgeries are used as treatment modality for revascularization and limb salvage for the patients with peripheral vascular disease especially critical limb-threatening ischaemia and sometimes for acute limb ischaemia, aneurysms and trauma. Autologous vein graft and synthetic grafts are used as conduit. Autologous vein grafts are durable compared to synthetic grafts.

Department of vascular and transplant surgery, Teaching Hospital Karapitiya provides, revascularization and limb salvage surgical services covering entire southern province and surrounding areas consisting nearly 3.5 million population(National census 2012).

**Methodology**

Retrospective analysis of data from departmental database for a period of 5 years from January 2014 to December 2018. All the patients who underwent extremity bypass surgeries for peripheral vascular disease mainly with critical limb ischaemia were included.

**Results**

Total of 248 bypass surgeries performed.

Table 1: Type of bypass surgeries performed.

Type of bypass	2014	2015	2016	2017	2018
Aorto-femoral		5	8	3	2
Femoro-popliteal	8	19	34	21	36
Femoro-femoral		3	6	7	4
Femoro-distal		5	2	1	
Popliteal-distal	10	9	22	20	19
Upperlimb	1				
Axillo-femoral		2			1
Total	19	43	72	52	62

**Discussion and conclusion**

Femoro-popliteal and femoro-distal bypasses are the most performed surgeries, which show increasing trend

throughout. Upperlimb surgeries are less in number. Femoro-distal bypasses were decreased gradually and subsequently abandoned due to high failure rates. Other surgeries like aorto-femoral, axillo-femoral and femoro-femoral are descending in trend due to the introduction of endovascular procedures. A detailed analysis including socio-demographic factors and comorbidities to be done in future endeavor better understanding.

**PP 136 - Summary of surgeries performed during the period of five years from 2014 to 2018 by department of vascular and transplant surgery - an audit**

Sanjeyan J, R Ubayasiri, L Prageeth, Sachith A, Kapilan G, Saseekaran B, U D Silva

Teaching Hospital Karapitiya, Sri Lanka

**Introduction**

Teaching Hospital-Karapitiya is the third largest hospital in the country and Department of vascular and transplant surgery is one of the busiest departments, which provides continuous vascular-oncall, revascularization, limb salvage and transplant surgical services covering the entire southern province and surrounding areas consisting nearly 3.5million population(National census-2012).

**Methodology**

Retrospective analysis of data from departmental database for a period of 5years from January-2014 to December-2018. All the patients who underwent below surgeries were included and others were excluded.

**Result**

Surgeries	2014	2015	2016	2017	2018
Vascular emergency surgeries	20	35	62	56	45
Extremity bypasses	19	43	72	52	62
Aortic aneurysm repairs	3	1	4	3	8
Liver resections	3	3	5	4	6
Varicose vein procedures	153	204	185	302	292
AV fistula creation	42	51	116	164	195
Carotid-endarterectomies	3	0	5	18	3
Kidney transplants	9	17	21	26	24

**Note:** Total of 102 kidney transplants were performed, which includes 5 surgeries before 2014.

## Discussion and conclusion

There is a peak of vascular emergencies in 2016 and shows a descending trend after that. Limb bypasses show a slight decrease after the introduction in endovascular procedures in 2016. Venous surgeries and AV fistulas are in ascending trend. Carotid endarterectomies showed a peak in 2017 and this department contributed a big number in kidney transplants as well.

The Department of vascular and transplant surgery, TH-Karapitiya strive to be a center of excellence in providing services to the southern province while being complementary to other vascular departments in Sri Lanka.

### PP 137 - Can a questionnaire based physical activity assessment predict postoperative outcomes?

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MTD Silva, P V H D K Wijetilake, U Senerath, S Sivaganesh

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#### Introduction

Surgical outcomes depend on multiple factors including physical fitness. Risk stratification identifies patients who benefit from targeted intervention, precluding the need for routine cardio-respiratory assessment. Data on the relationship between questionnaire based fitness assessment and postoperative outcomes in South Asian and Sri Lankan populations is scarce. This study explores the use of validated physical activity questionnaire to predict postoperative outcomes in a sample of Sri Lankan patients at a tertiary state hospital.

#### Methodology

This is a prospective analytical study on adults undergoing elective major abdominal surgery in selected general surgical units. An interviewer administered questionnaire adopted from the Duke Activity Status Index (DASI), Metabolic Equivalent (MET) score, comorbidities and American Society of Anaesthesiologists (ASA) status were used. The hospital stay (LoS), ICU stay, HDU stay and postoperative morbidity were recorded.

#### Results

Eighty-nine patients, mean age 52.79 (27-90) years and male to female ratio 1:1.6 were included. Major, major plus and complex major operations were 40, 32 and 17 respectively. Overall correlation between DASI and LoS was weak ( $r = .283$ ,  $p = .007$ ). MET score was significantly associated with

LoS ( $F = 21.187$ ,  $p = .000$ ). No association was observed between ASA, comorbidities and outcome parameters.

#### Discussion

History based physical activity assessments like DASI appear to predict postoperative outcomes. This could facilitate selective specialised preoperative assessment and preparation for HDU/ICU care.

### PP 138 - Resection for primary ileocecal crohn's disease: Is temporary ileostomy associated with less surgical recurrence

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#### Introduction

To compare the rate of surgical recurrence after primary ileocecal resection (ICR) with and without immediate restoration of gastro-intestinal continuity (GIC).

#### Methodology

All Patients who underwent primary ICR for Crohn's disease (CD) between 2000 - 2012 in three tertiary units were identified from a prospective database, applying strict inclusion criteria. Time zero in each group was establishment of GIC, and surgical recurrence the primary endpoint.

#### Results

ICR with anastomosis (group 1) was performed in 346 patients and with temporary ileostomy (group 2) in 88. Median follow-up time was 91.4 months (IQR 66.8 – 130.8), median time between ICR and closure of ileostomy 8.1 months (IQR 5.3 – 11.6).

Fifty-five patients in group 1 had a surgical recurrence during follow-up compared to 12 in group 2 ( $p = 0.98$ ). Reinterventions for recurrent CD in active smokers were observed in 11/30 (36.7%) patients in group 1 and 1/15 (6.7%) in group 2 ( $p = 0.17$ ), and 20/92 (21.7%) / 4/39 (10.3%) for patients with penetrating Crohn's disease (B3 Montreal) ( $p = 0.11$ ).

#### Conclusion

ICR with temporary ileostomy reduces the long-term surgical recurrence rate in active smokers and penetrating CD.

**PP 139- Skin tube vaginal reconstruction for Mayer–Rokitansky–Küster–Hauser syndrome - case series.**

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**Introduction**

Mayer–Rokitansky–Küster–Hauser syndrome (MRKH) or müllarian agenesis is characterized by congenital failure of the Müllerian development, resulting in a missing uterus and vaginal hypoplasia or aplasia. Few procedures are available for reconstruction of a functioning vagina for penetrative sexual intercourse. In this study we present 3 cases of skin tube vaginal reconstruction.

**Methodology**

We performed 3 skin tube vaginal reconstructions in last 2 years on patients with diagnosed MRKH. All were young women presented to gynaecology unit with primary amenorrhea and diagnosed to have vaginal agenesis with a shallow vagina of <1cm. Gynaecological workup demonstrated uterovaginal Hypoplasia with normal urethra and anal cannal.

Surgery was performed with GA, urethral catheterization and rectal probing. Perineum was explored through a cruciate incision in the vulva incorporating the vaginal remnant. Neo-vagina was created by meticulous dissection in-between periurethral tissues anteriorly and Denonvilliers' fascia posteriorly which gives good functional gliding surface for skin tube graft. In subsequent cases we could achieve a vaginal depth of 11cm and a circumference of 14 cm. Intermediate thickness split skin graft was harvested from thigh and it was inverted and skin tube was created around a tampon created with gauze.

**Results**

Immediate graft survival was > 90% and candle dilatation was started after 10 days. None of our cases developed strictures and all of them do vaginal dilatation comfortably with 2.5cm diameter candle. Two patients showed mucosalization on followup.

**Conclusion**

Skin tube technique is a successful technique with a less mucosal secretions compared to other techniques.

**PP 140 - Outcomes of lower limb open revascularization for critical limb ischemia; a single center experience**

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**Introduction**

With the epidemic of diabetes, the incidence of lower extremity arterial disease (LEAD) is on the rise. In this study we aim to present our experience with open lower limb revascularization for critically ischemic limbs.

**Methodology**

Prospectively collected data from 550 lower limb bypass surgeries over 4-year period were analyzed. All patients were followed up (1-51 month) with clinic reviews and a telephone-based questionnaire. 478 (86.9%) patients were contactable and included for the final analysis.

**Results**

The median age of the patient population was 65 years (30-90). There was a female preponderance (64%). 80% were diabetic while 45.6%, 11.3% and 8.8% had hypertension, ischemic heart disease and chronic kidney disease respectively. 24% were smokers.

All procedures were done for limb threatening tissue loss or rest pain. Majority (55%) were distal bypasses. The overall survival and limb salvage (death censored) at the end of 42 months was 73% and 83% respectively.

**Conclusion**

Our limb salvage rates are in par with international standards. Further studies to identify predictors of limb loss following lower limb revascularization are needed.

## **PP 141 - Organ-preserving minimally invasive approaches in the management of mesh erosion after laparoscopic ventral mesh rectopexy**

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### **Introduction**

Mesh erosion is a feared complication after LVMR. We describe an approach to managing these complications using organ-preserving, minimally invasive techniques.

### **Methodology**

Patients managed with organ-preserving techniques for mesh erosion after LVMR were identified from a prospectively maintained database. Clinical records were reviewed, and patients contacted to determine outcome. A Likert score was used to assess patient symptoms and overall satisfaction with outcome.

Approach to management comprised: 1. Initial assessment by flexible sigmoidoscopy, MRI and EUA to assess erosion 2. If "minor" then simple trimming of mesh and repeat EUA 3. If "major" then laparoscopy, detachment of mesh and excision of pelvic component 4. Serial per-anal procedures to extract mesh with TEM/TAMIS if required.

### **Results**

11 cases of mesh erosion were managed in this way. All were females, with a median age of 60 years. One patient had a temporary colostomy. Vaginal, rectal and perineal erosions occurred in 5, 4 and 1 patients respectively. Vaginal erosions presented at a median of 51 months after LVMR, compared to 17.5 months for rectal erosions. Median follow-up after the last minimal invasive procedure was 24 months. Vaginal erosions required a median of 2 procedures to achieve resolution as opposed to 5 for rectal. Out of 11 patients, 8 were satisfied with the outcomes of their management, 2 were not and 1 ambivalent.

### **Conclusion**

Mesh erosion can be managed successfully with organ-preserving minimally invasive approaches. However, this requires multiple procedures and many months to complete.

## **PP 142 - Wilm's tumour in Sri Lankan children: a single center experience**

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### **Introduction**

Nephroblastoma is one of the main solid organ cancers which prevail among Sri Lankan children. Local statistics regarding Nephroblastoma are minimal.

### **Objective**

To study the histo-clinico-pathological description of nephroblastoma at Lady Ridgeway Hospital.

### **Methodology**

An institutional based retrospective study using data available from 2016 to 2018.

### **Results**

Nephroblastoma prevalence calculated from the study population was (17.8%). The majority of patients were girls (59.5%), from western province (32.4%), belonging to the 1-5 year age category (67.6%). The commonest presentation was a non-tender, intra-abdominal mass (29.7%). Twenty seven percent of tumours were found as incidental findings. They were commoner on the left side (59.38%) while 12.5% of the tumours being bilateral. Out of the radiological investigations, CT has been used in 96% of the cases and MRI in 4%. 48.5% of the nephroblastoma patients had undergone chemotherapy prior to surgical resection while 61.3% had undergone surgical resection only. Biopsy had been performed in 38.7% of the nephroblastomas. Out of the resected, 53.3% had clear margins. Only 21.42% of the nephroblastoma specimens had lymph nodes harvested at the time of nephrectomy. Out of the patients diagnosed to have nephroblastomas 11.4% had metastases at the time of primary tumour diagnosis. Most of the secondaries were found in the lungs.

### **Conclusion**

Nephroblastoma was the second most common tumour found in the study population. Lymph node sampling at the time of primary surgery, in our population is very low which would have long-term implications such as tumour recurrence.

**PP 143 - Impact of near infrared fluorescent cholangiography (nirf-c) in safe laparoscopic cholecystectomy.**

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**Introduction**

Bile duct injury (BDI) is a major cause of morbidity & mortality in laparoscopic cholecystectomy. The incidence of BDI is about 0.15-0.3%. The number of patients required for a randomized control trial to assess the impact of NIRF-C in BDI would be overwhelming. Hence we use surrogate markers of efficacy, which is the rate of visualization of important biliary structures before and after the dissection of triangle of Callot's.

**Methodology**

Prospective analysis was done on 51 consecutive laparoscopic cholecystectomies performed in a single institution. All patients received Indo-Cyanine Green (ICG) prior to the procedure. Visualization of important biliary structures were

assessed pre and post dissection of the Callot's triangle. The relative position of Rouviere's sulcus in relation to the Common Bile Duct (CBD) was also recorded.

**Results**

Common hepatic duct, cystic duct, CBD and cystic-CBD junction were visualized in 60.7%, 80.3%, 70.5%, and 62.7% pre-dissection and in 82.3%, 100%, 96%, and 90.1% post-dissection respectively. Right and left hepatic ducts were visualized only in 9.8%, 13.7% pre-dissection and in 11.76%, 17.6% post-dissection respectively. Rouviere's sulcus was seen anterior to the CBD in 60% .No adverse reactions to ICG were observed.

**Discussion and conclusion**

NIRF-C is a non-invasive, safe mode of real time assessment of important biliary anatomy during laparoscopic cholecystectomy which eventually may reduce BDI. It can particularly facilitate a trainee surgeon to appreciate biliary anatomy when dissecting the Callot's triangle. Rouviere's sulcus is not always seen in laparoscopic cholecystectomy, but when visible it's a safe guide to avoid BDI.