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**THE SRI LANKA SURGICAL CONGRESS 2023**

**52<sup>ND</sup> ANNUAL ACADEMIC SESSIONS**

**OF**

**THE COLLEGE OF SURGEONS OF SRI LANKA**

**AND**

**JOINT INTERNATIONAL CONFERENCE WITH**

**THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH**

**AND**

**THE SAARC SURGICAL CARE SOCIETY**

**September 14<sup>th</sup> - 16<sup>th</sup> 2023**

**Colombo, Sri Lanka**

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**Accepted Abstracts**

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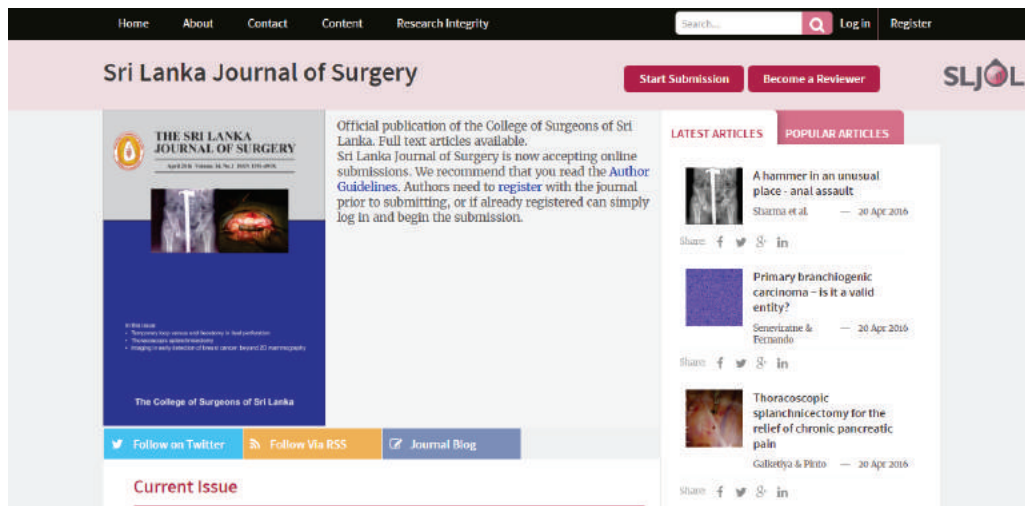
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# ABSTRACTS

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## ORAL PRESENTATIONS

## **OP 1 Serum Thyroid Stimulating Hormone (sTSH) levels as a predictor of Malignancy in Thyroid Nodules**

**Gayanga Kottegoda, Dilini Kannangara, Janani Bhagya, Sandeepa Dadigamuwage, Sivarajah Suganthini, Subhashana Gunawardena**  
**Sri Jayawardenapura General Hospital, Sri Lanka**

### **Introduction**

The evaluation of thyroid nodules includes a clinical history and examination followed by ultrasonography and fine needle aspiration cytology of ultrasonically suspicious nodules. Even after a full evaluation, some thyroid nodules are found to be indeterminate with respect to malignancy. It has been suggested that high levels of sTSH can be used as a predictor of malignancy in thyroid nodules.

### **Methods**

A retrospective study was conducted on patients who underwent surgery for thyroid nodules between 01st January 2019 and 31st December 2022. Patients who had been on thyroxine or antithyroid drugs were excluded. Data was collected using previous medical records and patient interviews. Statistical analysis was performed using SPSS version 24.

### **Results**

Data was collected on 102 patients, out of which 86 patients (84.3%, mean age 43.6 years) were female, and 16 patients (15.6%, mean age 45.2 years) were male. Histologically confirmed thyroid malignancy was present in 18 patients (17.6%), out of which 15 (83.3%) were female and 3 (16.6%) were male. There was no statistically significant ( $P < 0.05$ ) difference in the sTSH noted in patients with thyroid carcinoma (mean sTSH 1.378  $\mu$ IU/ml) compared to histologically benign nodules (mean sTSH 1.350  $\mu$ IU/ml).

### **Discussion and Conclusions**

Multiple studies done in different settings have shown an association between a high sTSH and a higher possibility of thyroid malignancy. However, in our cohort of patients no such association was observed.

## **OP 5 Modified Radical Mastectomy for “Secondary Inflammatory Breast Cancer”- Is it adequate?**

**Chandan Kumar Jha, Upasna Sinha, Prashant Kumar Singh, Pritanjali Singh**  
**All India Institute of Medical Sciences, Patna, Bihar, India**

### **Introduction**

Many patients in developing countries present with long-standing locally advanced breast cancer (LABC) with erythema and edema of the overlying skin. Some authors have labeled such patients as having “secondary inflammatory breast cancer (SIBC)”. In the absence of specific guidelines, these patients are managed as LABC/IBC. We hypothesized that patients with SIBC may have high locoregional recurrence rates, similar to IBC following multimodality therapy with neoadjuvant chemotherapy, MRM, radiotherapy, and targeted therapies. This study was aimed at describing the clinicopathological profile and outcome of SIBC.

### **Methods**

Patients with SIBC treated between February 2019- January 2023 were included. Clinicopathological profile and outcome data were retrieved from patient files and electronic medical records and analyzed. Results- 24 women with SIBC (mean age- 50.3 $\pm$ 10.5 years, 83.3%- postmenopausal) were included. The mean clinical tumor size was 10.5 $\pm$ 7.1 cm, all were node-positive, and 50 % presented with distant metastasis. All patients received some form of treatment, but 12 patients received multimodality treatment. Following multimodality treatment, no patient developed isolated distant recurrence, 41.7% developed local recurrence, and 33.3% of patients developed both local and distant recurrence. The mean time to recurrence after surgery was 4.9 $\pm$ 2.9 months. At a mean follow-up of 18.8 $\pm$ 6.7 months, the overall survival in the patients who received multimodality therapy was 50%.

### **Discussion and Conclusions**

The rate of local recurrence following multimodality therapy (NACT, MRM, and radiotherapy) is unacceptably high among SIBC patients. Larger studies should be done to clarify whether MRM is an adequate surgical treatment for SIBC patients.

## **OP 10 Tumor-infiltrating lymphocytes and its prognostic value in Triple-Negative Breast Cancer: Results from Tertiary Care Centre.**

**D H J P U Lakshani, B N L Munasinghe**

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

### **Introduction**

Triple-negative breast cancer (TNBC) is an aggressive malignancy. Tumor-infiltrating lymphocytes (TILS) can promote the host immune system. Nottingham's prognostic index (NPI) is a tool for prognostication. This study highlights the prognostic value of TILS in TNBC.

### **Method**

A retrospective, cross-sectional, study was done at a tertiary care unit from January 2020 to April 2023. The primary end-point was the correlation of the prognostic value of TILS in TNBC. The secondary end-points were; (1) demography (2) tumor histology (3) tumor size (4) lymph node (LN) status. Statistical significance was signed to a p-value <0.05.

### **Result**

Of 400 (all females) breast cancer patients 64 (16%) patients (median age 56.5 years [range 26-86]), belonged to the TNBC group. The majority, 36 (56.3%; 95% CI, 43.3%-68.6%) were node-negative, 77% (n=49) had a tumor of <40 mm and 69% (n=44) had Grade 3 tumors. 95% (n=61) had invasive ductal cancer.

The majority of TNBC showed moderate TILS (35.9%) and belonged to the moderate prognostic group (MPG) (54.7%). None of them belonged to the excellent prognostic group (EPG). TILS vs prognostic groups showed significant association (p=0.007) and moderate TILS vs MPG p=0.026, and minimal TILS vs poor prognostic group (PPG) p=0.011. Most LN-positive TNBC showed minimal TILS and belonged to PPG; none of them showed excellent or good prognoses. The 47% of LN-negative showed moderate TILS and belonged to MPG and 8% were able to show a good prognosis.

### **Conclusion**

TILS had a significant association with NPI in TNBC. Positive nodal status added to a poorer prognosis.

## **OP 14 The association between Gastroesophageal Reflux Disease and stress: A countrywide study of Sri Lanka**

**Nilanka Wickramasinghe, Ahthavann Thuraisingham<sup>2</sup>, Achini Jayalath, D N Samarasekara, Dakshitha Wickramasinghe, Etsuro Yazaki, N M Devanarayana**  
**Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka**

### **Introduction**

Stress is a known associated factor for gastroesophageal reflux disease (GERD). However, the dynamics between stress and GERD is not fully studied, especially in Sri Lanka. Our objective was to assess it.

### **Methods**

For this cross-sectional descriptive study, 1200 individuals (age ranged 18-70 years, mean 42.7 years [SD 14.4 years], 46.1% males), were recruited using stratified random cluster sampling from all 25 districts of Sri Lanka. An interviewer-administered questionnaire which included a country-validated GERD screening tool, and the Perceived Stress Scale (PSS) was used to assess GERD symptoms and stress. GERD was defined as those having heartburn and/ or regurgitation at least once per week which is on par with globally accepted criteria. Those who did not fulfill these criteria were considered controls.

### **Results**

PSS score was higher in those with GERD (mean 13.75 [standard deviation (SD) 6.87]) than in controls (mean 10.93 [SD 6.80]), (p <0.001, Mann-Whitney U test). The adjusted odds ratio for GERD symptoms was 1.96 times higher (95% confidence interval 1.50-2.55) between moderate to high-stress level and low-stress level participants. PSS score correlated significantly with the GERD screening tool score (R 0.242, p <0.001). Heartburn, regurgitation, chest pain, cough, and burping were significantly frequent in those with moderate to high-stress levels (p <0.001). Those with higher stress scores were more likely to use acid-lowering drugs (p=0.006).

### **Conclusions**

Individuals exposed to higher levels of stress are more likely to have GERD symptoms. Therefore, stress reduction should be an important part of GERD management.

## **OP 24 Fluorescence Guided Breast Conservation Surgery: A Novel Low-Cost Technique**

**Chitresh Kumar, Anurag Srivastava, Sandeep Mathur**  
Surgical Oncology, All India Institute of Medical Sciences, Bilaspur, India

### **Introduction**

Palpation-guided breast-conservation-surgery is associated with tumour involved margins up to 41% of cases. Intraoperative-ultrasound guidance and frozen-section-biopsy result in significant reduction in margin involvement. However, these are not widely available.

### **Methods**

Each patient received 2 ml of iv 20% Fluorescein, just before incision. BCS (1 cm margin) was performed under ultrasound guidance. Specimens were bisected and examined under blue light. Six biopsies (1mm each) were obtained from a non-fluorescent area 5mm away from fluorescent margins at 2, 4, 6, 8, 10, 12 o'clock.

### **Results**

Mean age of patients was 49.5 years (S.D.=6.4). Mean size of tumours on histology was 2.6 cm (S.D.=0.9). Seventeen (32.7%) patients presented with T1 and 35 (67.3%) with T2 tumours. Four patients (7.6%) received NACT. After bisection, all tumours exhibited fluorescence. Non-fluorescent margins in two (3.8%) out of 52 patients were found to be involved on histology. Both patients received chemotherapy before surgery. This technique predicted negative histological margin in 50 (96.2 %) out of 52 patients.

### **Discussion**

The mean age of patients (49.5 + 6.4 years) was similar to other published studies. Two third patients belonged to T2 as in all developing worlds we have late presentation of breast cancer. Two out of four patients who received chemotherapy were found to have positive margins (50%). This signifies that this technique is not suited for patients who received NACT.

### **Conclusion**

Fluorescence guidance is an effective, safe, and low-cost technique of margin assessment during breast conservation surgery.

OP 28 Diagnostic accuracy of clinical evaluation and conditional imaging to detect urgent acute abdomen: a prospective crosssectional study

**OP 28 Diagnostic accuracy of clinical evaluation and conditional imaging to detect urgent acute abdomen: a prospective crosssectional study**  
**Krishna Kant Singh, Ashi Verma, Ajay Pal**  
King George's Medical University Lucknow, Uttar Pradesh, India

### **Background**

The sensitivity of medical history, physical examination, and laboratory values are higher for differentiating urgent acute abdomen from non-urgent cause. Radiological tests like x-ray, ultrasonography (USG), and CT scans are needed in cases of diagnostic uncertainty. However, it increases the overall cost and waiting time. The present study was performed to study the diagnostic accuracy of clinical evaluation and imaging to detect urgent acute abdomen so that a diagnostic pathway may be formulated for resource deficient countries.

### **Methodology**

60 patients, who presented with acute abdomen, were categorised as urgent and non urgent surgical condition and underwent laparotomy. A detailed history of all the patients was taken along with thorough clinical examination and laboratory investigation findings; thereafter various radiological imaging modalities were used in a prescribed way. Diagnosis after clinical evaluation and various imaging modalities was made separately and compared to the final diagnosis.

### **Results**

The overall diagnostic accuracy of clinical evaluation alone was 58.33%. But the diagnostic accuracy in cases of obstructed hernia, adhesive acute intestinal obstruction, appendicular perforation, post D&C perforation, and enteric perforation with a history of fever was 100%. Hence, the overall diagnostic accuracy after conditional imaging was 71.67% only. 7 cases in which CT scan was done had an accuracy of 100%.

### **Conclusion**

Patients of obstructed hernia, appendicular perforation, benign perforation etc. can be taken up for emergency laparotomy after clinical evaluation with or without X-Ray/USG. However, in koehs abdomen, malignancy, sealed perforation, mesenteric ischemia etc, CT scan/ MRI for pre-operative diagnosis is mandatory.

## OP 4 Comparison of surgical outcome between shunt surgery and selective devascularization in patients of non-cirrhotic portal hypertension

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### Introduction

Among various conditions leading to non-cirrhotic portal hypertension (NCPH), portal hypertension is predominant and early manifestation in extrahepatic portal venous obstruction (EHPVO) and non-cirrhotic portal fibrosis (NCPF), leading to variceal bleeding, splenomegaly and hypersplenism. Surgical treatment of NCPH includes shunt surgery and devascularization procedure. We described our clinical experience of surgical treatment of NCPH and comparison between shunt surgery and selective devascularization procedure.

### Methods

Consecutive patients of NCPH who required surgical intervention were divided to groups- shunt surgery or splenectomy with selective devascularization. The surgical outcome was compared between the groups and followed up in terms of rebleed, hypersplenism, portal cholangiopathy and mortality

### Results

Of all 34 cases, there were 15 males and 19 females; 16 cases underwent shunt surgery- Proximal splenorenal shunt (PSRS) and 18 cases underwent splenectomy with selective devascularization. Hypersplenism and portal cholangiopathy was present in 14 and 4 cases in shunt surgery group and 15 and 5 cases in devascularization group respectively. There was no difference in post-operative course, correction of hypersplenism and re-bleed rate between the two groups. Recurrence or aggravation of portal cholangiopathy was reported in 3 cases (2 in shunt surgery and 1 in devascularization group). One patient underwent Roux-en-Y Hepatico-jejunostomy and there was one mortality in PSRS group due to severe cholangitis in the follow up period.

### Conclusion

There was no difference in surgical outcome between shunt surgery and devascularization procedure in our study. Further studies with larger sample size may be needed to validate the results.

## OP 9 Outcomes Of Open Thoracoabdominal Aortic Aneurysm Repair : A Case Series

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### Introduction

Open thoracoabdominal aortic aneurysm (TAAA) repair remains a challenging surgery among vascular or cardiothoracic surgeons due to its high mortality rate. Even though endovascular aneurysm repair (EVAR) is associated with low mortality, in Sri Lanka the open repair still remains a dominant treatment option. This series presents the outcomes of open TAAA repair in consecutive patients.

### Methods

This is a retrospective analysis of cases done from June 2019 to May 2023. Data on demography of patients, indications, details of surgery, complications and follow up were collected. Patients underwent TAAA repair through a thoracoabdominal or thoracotomy incision ( midline laparotomy extending along the left 6th intercostal space). A temporary axillofemoral bypass (right side) was used to maintain distal perfusion during aortic clamping in 8 (88.9%) of cases.

### Results

8 patients were included. Mean age was 64.3 years (21 - 77), with a male predominance (87.5%). 7(87.5%) were

Accuracy	n	Clinical diagnosis		Provisional diagnosis					
				After X-Ray		After USG		After CT/MRI	
		N	%	N	%	N	%	N	%
Obstructed hernia	5	5	100.00	5	100.00	5	100.00	-	-
Adhesive obstruction	1	1	100.00	1	100.00	1	100.00	-	-
Carcinoma colon	4	3	25.00	3	25.00	3	25.00	4	100.00
Sigmoid Volvulus	2	0	0.00	2	100.00	2	100.00	-	-
Koch's abdomen	12	7	58.33	7	58.33	8	66.67	2	100.00
Gastric perforation	12	11	91.67	11	91.67	11	91.67	-	-
Duodenal perforation	4	3	75.00	3	75.00	3	75.00	-	-
Enteric perforation with history of fever	4	4	100.00	4	100.00	4	100.00	-	-
Enteric perforation without history of fever	6	0	0.00	0	0.00	0	0.00	-	-
Carcinoma pancreas with biliary peritonitis	1	0	0.00	0	0.00	1	100.00	1	100.00
Isolated perforation	1	0	0.00	0	0.00	0	0.00	-	-
Appendicular perforation	1	1	100.00	1	100.00	1	100.00	-	-
Diverticular perforation	1	0	0.00	0	0.00	0	0.00	-	-
Meckel's perforation	1	0	0.00	0	0.00	0	0.00	-	-
Mesenteric ischemia cause SMA thrombosis	1	0	0.00	0	0.00	0	0.00	-	-
Transverse colon perforation	1	0	0.00	0	0.00	0	0.00	-	-
Acute pancreatitis	1	0	0.00	0	0.00	0	0.00	-	-
Post D&C' perforation	2	2	100.00	2	100.00	2	100.00	-	-
Total	80	35	58.33	37	61.67	39	65.00	43 (7)	71.67 (100.00)

atherosclerotic in origin and 1 (12.5%) was a infected aneurysm following a fish bone injury. 3 (37.5%) were emergency repairs. 3 (37.5%) patients died (1 elective repair due to coagulopathy on postoperative day 1, 2 emergency repair due to perioperative cardiac arrest).

### Conclusion

The overall perioperative survival in this series for elective repair is 80% and for emergency repair is 33.3%. Establishing EVAR facilities, especially for emergency, is likely to improve the outcomes further.

### OP 12 Outcome following kidney transplant - Single unit experience

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National Hospital Sri Lanka

### Introduction

Kidney transplantation (KT) is a complex procedure. Knowledge about complications of the surgery is important to reduce mortality and morbidity.

### Methodology

KT performed in the University Vascular and Transplantation Unit, National Hospital of Sri Lanka from April 2021 to April 2023 were included in the study. Patient demography, pre and post transplant evaluation details and follow-up details were analyzed.

### Results

28 were included. Mean age was 41 years (17 - 58). 19 (67.8%) were males. Associated comorbidities were diabetes mellitus (50%, n=14), hypertension (43%, n=12) and ischemic heart disease (21%, n=6). Mean follow-up was 405 days (58 - 783). Early surgical complications were perinephric hematoma (2/28, 7.1%), subcutaneous hematoma (1/28, 3.6%) and incisional hernia (1/28, 3.6%). Mortality was 17% (n=5) - 4 (80%) due to sepsis (3 UTI, 1 Coronavirus Disease (COVID) pneumonia and 1 necrotizing fasciitis). Survival following live and cadaveric KT were 90.0% (18/20) and 62.5% (5/8) respectively. This value was statistically significant (p - 0.04).

### Discussion and conclusion

Mean survival at 1.1 year follow up in this series is 82.1%. Cadaveric KT is associated with significantly more mortality (p - 0.04). This is probably due to poor preoperative preparation i.e. poor frequency of dialysis, etc. Sepsis is the common cause for mortality (80%). Improvement in facilities is likely to reduce this in the future.

### OP 13 A Randomised comparative Study to compare the outcomes in the Patients of Varicose veins receiving Micronized purified flavonoid fraction (MPFF) before surgical Intervention with patients not receiving MPFF before the intervention

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### Introduction

Various options to treat primary varicose veins (VVs) are medical therapy, minimal invasive and open surgery. Aim of this study was to look for the effect of Micronized purified flavonoid fraction (MPFF), an oral phlebotropic drug on the quality of life in post-operative period in VVs patients.

### Methods

All adult symptomatic patients having primary VVs were included for the study. Patients were diagnosed on the basis of Duplex scan venous phase in standing position for the incompetency. Patients were randomized in two Groups A and B. In Group A, patients got MPFF (1000mg) once a day for 01 months then got Endovenous laser ablation (EVLA) while in Group B patients underwent EVLA without getting MPFF. Primary endpoints were to compare the quality of life (QoL) at 4 week, 3 month and 6 months post-operatively using SF 36 and Aberdeen varicose vein questionnaire (AVVQ).

### Results

Regarding AVVQ, at 4th week mean value in Group A and B was  $0.467 \pm 0.703$  and  $0.583 \pm 0.423$  (p=0.4649). At 3rd month this was  $0.145 \pm 0.396$  and  $0.363 \pm 0.227$  (p=0.0113) respectively. At 6 month it was  $0.167 \pm 0.566$  and  $0.233 \pm 0.489$  (0.6307). So, it showed that QoL was better in Group A. Regarding SF 36, QoL in Group A were also better in certain domains as compared to other Pain and SSI were also less in

Group A.

### Conclusion

Giving MPFF pre operatively to the patients having VVs have better quality of life in post operative periods .

### OP 20 BK Virus Associated Nephropathy In Renal Transplants; Experience In Sri Lanka.

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### Introduction

BK virus (BKV)-associated nephropathy (BKVAN) has emerged as post-transplant complication threatening graft survival. Modern immunosuppressants are among the culprits. Literature on BKVAN in Sri Lanka is sparse. Here, we present fourteen cases. Method Retrospective study analyzed fourteen cases positive for urine BKV-PCR collected from 2018–2023.

### Results and discussion

Recipients' mean age was 38 years (17 - 58), male to female ratio 9:5. Six had uncertain etiology for chronic kidney disease. Three had diabetic nephropathy. Twelve out of 14 received live donor kidney. Thirteen donors were male with mean age 38 years (24-52). Basiliximab induction followed by steroids, Mycophenolate and Calcineurin-inhibitors was used in all. 86% of cases were detected within first year. Two were diagnosed at 4th and 9th year. Nine were asymptomatic at diagnosis while four had graft dysfunction. Hematuria, proteinuria and dysuria were manifestations. Six had urinary decoy cells. Four had positive BKV DNA in blood. Kidney biopsy carried out in six. Histology revealed SV40 confirmed viral inclusions in one case. Two had ureteric stenosis with graft dysfunction. Immunosuppression was reduced in all, while four received Leflunomide. Two grafts were failed due to co-existing BKVN and acute cell mediated rejection.

### Conclusion

Urinary BKV PCR detected within a year post transplant in

86%. Screening improved early diagnosis. Urine BKV-PCR is more sensitive than decoy cells. BKVN led to graft loss in two cases. Graft ureteric obstruction diagnosed in 14%. We recommend early universal screening of recipients to improve graft survival. Key words BKVAN, immunosuppression, renal transplant, graft loss

### OP 21 Role of four layer compressive bandages in quality of life and therapeutic outcomes in chronic venous ulcer patients: A randomized study.

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### Introduction

Chronic venous ulcer (CVU) of leg is persisting for more than three months of treatment. Most common cause for CVU is Chronic venous insufficiency (CVI). Standard therapy for CVU is four layer compressive bandages (4LCB) but ulcer recurs (70%) if incompetent veins not treated. This study was to see effect of 4LCB on CVU patients on Quality of life (QoL) and other outcomes.

### Methods

All adult patients having CVU due to primary varicose veins were randomly allocated to two Groups A or B. Out of 60, 30 (50%) cases were in each group. In Group A, 4LCB were applied on ulcer after the needed intervention viz. Endovenous Laser ablation, Stripping, sclerotherapy, while In Group B these 4 LCB were not applied after the aforesaid intervention. Patients were followed for 6 months.

### Results

QoL showed a significant improvement in Group A as compared to Group B in Role Play ( $p=.001$ ), emotional role ( $p=.028$ ), General Health ( $p=.0007$ ). Use of analgesics, itching, eczema, and increased leisure activities were also improved in the Group A as compared to B as compared by using Aberdeen varicose vein questionnaire. Healing of ulcer was faster in Group A ( $p$  value 0.001 at one month and 0.000 at 3 month). Charing Cross venous ulcer questionnaire (disease specific) also showed more improvement in group A ( $p$  Value  $<0.001$ ,  $<.001$ , 0.003 at 1 month, 3 month and 6 month, respectively).

## Conclusion

In CVU, 4LCB after surgery enhances the healing rate of venous ulcer and improves the quality of life and decreases healing time.

## OP 23 Outcome of endovascular aneurysm repair, a case series

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**University Vascular and Transplantation Surgical Unit, National Hospital Sri Lanka**

## Introduction

Endo vascular aneurysm repair (EVAR) has emerged as a minimally invasive technique for the treatment of aortic aneurysms (AA) with improved clinical outcomes. It is a valuable alternative to open surgery. Following results are the Sri Lankan experience in using EVAR in aortic aneurysm repair.

## Methodology

18 EVARs that were performed from 2012 to 2023 were retrospectively analyzed. Patient follow up data was taken from a computer database, during routine clinic visits and telephone-based interviews.

## Results

Median age was 69 years (38-80) (Male: 15, Female: 3). 10/18 (55.6%) aneurysms were abdominal AA and the rest were thoracic or thoracoabdominal AA. All except one case were done as elective procedures (17 under general anesthesia and one under local anesthesia). Post operative morbidity was seen in 33%. 2/18 (11.1%) had access related hematomas, 1/18 (5.6%) developed heart failure, 1/18 (5.6%) had unexplained backache and 2/18 (11.1%) developed type 1 endo leak. There were 2 deaths directly related to procedure (1/18 (5.6%) from aorto enteric fistula after 3 years, 1/18 (5.6%) from immediate bleeding from the aneurysm). Median hospital stay was 4 days.

## Discussion and Conclusion

The overall survival following EVAR is 16/18 (88.9%). High equipment cost and availability of technical expertise are drawbacks for a low-income country like Sri Lanka. Long-term surveillance is essential to monitor the complications such as endo leaks or stent migration, and address promptly if necessary.

## OP 3 Comparison of Surgical Site Infection (SSI) between Conventional and Negative Pressure Wound Therapy (NPWT) Assisted Delayed Primary Skin Closure (DPSC) in Grossly Contaminated Emergency Abdominal Surgeries: A Randomized Controlled Trial.

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## Introduction

This study aimed to compare Surgical site infection (SSI) between conventional and Negative pressure wound therapy (NPWT) assisted DPSC in class 4 emergency abdominal surgeries.

## Methodology

The study population meeting the inclusion criteria was randomized into the conventional arm and NPWT arm. Regular dressing with normal saline and gauze was done in the control arm, while NPWT dressing was applied in the test arm. The wound was assessed for the feasibility of DPSC on postoperative day (POD) five and assessment of SSI till POD 30. Post-operative wound complications and length of hospital stay were also evaluated.

## Results

A total of 86 patients were recruited (43 in each group) and the final analysis was done on 81 patients. The rate of SSI (10% vs 37.5%,  $p=0.004$ ), seroma formation (2.4% vs 20%,  $p=0.014$ ), wound dehiscence (7.3% vs 30%,  $p=0.011$ ), and the average length of hospital stay (7.5 days vs 5 days) was significantly lower in NPWT group.

## Discussion

The risk of SSI is highest in grossly contaminated surgeries. DPSC may result in decreased SSI rate, but there is a lack of definitive evidence. The role of NPWT in open abdominal wounds has been vastly studied but there is a lack of studies showing its application after fascial closure in the reduction of SSI.

## Conclusion

The present study concludes that the application of NPWT-assisted delayed primary skin closure shows a significant reduction in the rate of SSI in class 4 abdominal wounds where

the risk of SSI is highest. The results also suggest decreased post-operative wound complications and length of hospital study in the NPWT group.

#### **OP 8 Is FILAC a better alternative for Fistula in ano? A Single unit experience in a tertiary care center in Sri Lanka.**

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**Teaching Hospital Karapitiya, Sri Lanka**

##### **Introduction**

Fistula in ano is a challenge for colorectal surgeons. F1stula LAser Closure has claimed better fistula healing. After curetting and irrigation, FILAC involves a continuous laser beam applied over a 1 cm per second followed by closure of the internal opening. We aimed to assess our initial experience of this new technique.

##### **Methods**

A retrospective analysis was performed on consecutive patients with cryptoglandular anal fistula, who had FILAC as their mode of treatment. Data was collected using a questionnaire in respect to symptom analysis, operative findings and 12 months post operative follow up.

##### **Results**

A total of 37 patients were treated with FILAC procedure (male: female= 2:1) with a mean age of 39 years. Average energy used per centimetre of fistula in whole study is 67.3 mcj. 28 (87.5%) patients healed completely, while the rest 4(12.5%) recurred during the 1 year follow up period. Simple fistulas healed more successfully while the recurrences were seen in majority of complex fistulas. Two recurrences are within 6 months of the procedure and other two noted after 1 year. Post operative pain was amenable to simple analgesics, where mild and moderate pain was 37% and 63% respectively.

##### **Conclusion**

Reasonably better healing is seen when laser is used in short duration compared to studies where laser used for 3 seconds per cm. Days taken to return to work is within 2 weeks and none of them had severe post operative pain and could be managed with simple analgesics. The 1-year healing rate is promising.

#### **OP 22 Prospective surveillance for breast cancer related lymphedema: Experience from a lymphedema prevention clinic**

**Yohan Chamara, Gavesha De Silva, Aruni Jayasinghe, Hasangi Gamage, Kalaiyukan Sathasivam, Kanchana Wijesinghe, Niruban Ganesarajah, Umesh Jayarajah**  
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##### **Introduction**

Breast cancer related lymphedema (BRCL) is a potentially debilitating complication of breast cancer treatment and has a negative impact on the quality of life (QoL) of breast cancer survivors. The aim of this study is to investigate the prevalence of BRCL and its impact on the QoL in the Sri Lankan setting

##### **Methodology**

All patients who had undergone breast cancer surgery from 2022 January were invited to participate in the study. Lymphedema was measured using tape circumference measurements at standardized anatomical locations.

##### **Results**

We assessed 94 breast cancer patients over one-year period. Out of this 34 patients were identified with BCRL. All patients had undergone axillary node clearance (ANC). Lack of awareness on BCRL and dedicated clinics for regular follow up was observed in all patients. 17, 13 and 4 patients had subclinical, clinical stage 1 and stage 2 BCRL respectively. Mean arm measurement difference was 1.2 cm and 3.3cm in stage 1 and stage 2 respectively, compared to the healthy arm. The main subclinical symptoms were arm tingling, heaviness and firmness. There was no statistical difference in the age group, total body fat, arm visceral fat and type of breast surgery. There was a statistically significant correlation between BCRL and number of lymph nodes removed, obesity and QoL ( $p < 0.01$ ).

##### **Conclusion**

This study highlights the lack awareness related to BCRL and dedicated clinics for follow up and the significant impact on the QoL; there by emphasizing the need for timely action and intervention.

## **OP 27 Outcome of modified platysmectomy for acute phase neck burns**

**Dr Gayan Ekanayake, Dr Pathum Abeysekara, Dr Nadesan Pahirathan**

**National Hospital of Sri Lanka, Sri Lanka**

We believe that the article Esthetic Reconstruction of Severe Postburn Neck Contractures by Channdini Perera, Gary Fudem needs to be revisited to improve on the technique.

Post-burn neck contracture has two main components; dermal scarring and platysmal fibrosis. It leads to webbing of the neck. Deep dermal burns of neck and subsequent grafting on the granulating platysma behaves similarly. To avoid this complication, We adopted early excision of burn together with platysma, followed by skin grafting on the deep fascia for a decade. This technique carried the risk of submandibular gland exposure and marginal mandibular injury. We have modified the technique by preserving the sub-mental portion of the platysma.

### **Method**

The dissection moves down to deep fascia and elevates flap up to cervico mental crease. We preserve the remaining platysma up to the inferior border of the mandible. The grafts used are intermediate thickness non-meshed sheets. Sternocleido mastoid muscle anchors are Optime R 5/0 sutures that contours the anterior triangle. Finally, few fenestrations allowed blood to escape; improving graft survival. We prefer dressing with paraffin tulle and gauze under a soft collar.

### **Outcome**

10 patients recruited for the study.

Uncomplicated	6
Partial graft loss with no re-grafting	3
Partial graft loss with re-grafting	1
Hyper pigmentation	7
Graft contracture	3
Lateral band contractures	1
Salivary gland exposure	0
Facial nerve injury	0

### **Conclusion**

Modified platysmectomy for deep neck burns preserves facial nerve and prevents salivary gland exposure. This new modification is safer and reliable for neck burns.

## **OP 30 The patients outcome of bypass surgery in lower limb in surgical wards of NCTH- Ragama**

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**Department of Surgery, North Colombo teaching hospital, Ragama, Sri Lanka**

### **Introduction**

Bypass is a safe and effective treatment option practice to limb salvation. We evaluate the outcome of bypass surgery. We describe our experience from 2021-2022

### **Methodology**

Data was collected prospectively using an interviewer-administered questionnaire that elicited information on demographics, type and indication of bypass, post operative complications, rehabilitation outcomes and mortality.

### **Results**

The study included 40 patients who underwent bypass surgery. The gender distribution was 50% males and females. The mean age was 64.85 (IQR=44-87). patient underwent fem-pop bypass (n=34,85%), pop-Distal (n=5,12.5%), aorto-femoral (n=1,2.5%).

The cumulative mortalities at 1 month, 6 months, 1 year and 2 years were 7.5%(3),10%(4),15%(6) ,15%(6) respectively. Causes were sepsis (n=2,33.33%), heart attack (n=2,33.33%), older age (n=1,16.67%), renal failure 1(n=1,16.67%) within 2 years.

The functional outcomes varied among the patients n=3 were bedbound(7.5%), depend on wheelchair (n=1,2.5%), independent on wheelchair (n=4,10%) , independent with crutches(n=7, 17.5%) and independent walk (n=25,62.5%).

within 2 years post bypass period 20%(n=8) patients have undergone amputation, 5%(n=2) patients recurrent symptoms rest were recover without complication(75%,n=30). The cumulative limb salvage rate were 90% ,82.5% and 80% at 6 months ,1 year and 2 years. Respectively.

### **Conclusions**

bypass is a safe and effective treatment option practice in NCTH , Post bypass limb salvation rates comparable to the western world and majority of them have better improved independently as functional outcomes.

## **OP 31 Two year outcome after ultrasound guided sclerotherapy for symptomatic varicose veins**

**BAHSS Harischandra, SA Jayasekera, AP Weerasuriya**  
**Department of Surgery, North Colombo teaching hospital, Ragama, Sri Lanka**

### **Introduction**

Ultrasound guided foam sclerotherapy is an established chemical treatment for symptomatic varicose veins. We performed this single center prospective study in vascular clinic basis, aiming to analyze effectiveness and safety in this modality over a follow up period of two years.

### **Methods**

From November 2018 to March 2022, patients with symptomatic primary varicose veins who were given ultrasound guided foam sclerotherapy were included in the study. Data was collected prospectively, using an interviewer administered questionnaire on demographics, clinical success at a follow-up of 1,6,12-month and 2-years. Radiological success in terms of venous occlusion and absence of reflux were done using a duplex scanner follow up at 1 and 2 years. Results Total of 120 patients underwent Sclerotherapy. The median age 58(22-77) year, with a female preponderance (n=80,67.2%) In the 2 year clinical follow up, 34 with persistent symptoms(28.3%), 6 recurrent symptoms (5%), 80 resolving symptoms (66.7%) were reported. radiologically, 116 LVS obliteration(96.6%), 92 SPI obliteration(76.6%), 71 B/K PI obliteration(71%), 113 A/K PI obliteration (94.16%) were noted within 2 years.. There was a clear inverse relationship between VSS before and 1 month VSS after  $r=0.562, p>0.02$ ), there was a weak inverse relationship between VV occlusion and the volume of foam used ( $r = -0.557, P < 0.03$ ). The pre-procedural VCSS score was  $6.72 \pm 4.2$  and the post-procedural VCSS score was  $3.06 \pm 3.14$ .

### **Conclusions**

Sclerotherapy is a safe and effective treatment option for primary varicose veins in Sri Lanka, with varicose vein occluding rates comparable to the western world, Majority of patients clinically improved than radio-logical improvement.

## **OP35 Anal incontinence in patients with Fistula in Ano** **Thamisha Nugaliyadda, Dakshitha wickramasinghe** **NHSL, Sri Lanka**

### **Introduction**

The data obtained in this study will lead to a better understanding of the correlation of Anal incontinence and Fistula in Ano.

### **Methodology**

A sample size of 230 patients who attended the National Hospital of Sri Lanka diagnosed with anal fistulas were included in this study. An adapted questionnaire which included the Cleaveland incontinence score and Wexner incontinence score was used.

### **Results**

Data from 230 patients were collected in the period of 2015-2022 in the National hospital Colombo, Sri Lanka, between the ages of 10-70 with a mean age of 40.15. Incontinence degree was calculated in a classification of 1-4, 4 being the highest score for solid stools, liquid stools, gas/ mucus, wearing pads and lifestyle changes. A mean total incontinence score of 0.834 was noted amongst which the highest scores were for frequency of solid stool 32.6%, gas 30.5%, solid stool and liquid stool 30.5%. Out of 230 individuals 33% had to undergo major lifestyle changes to accommodate the inconvenience. Histopathology reports proceeded following the fistulotomies indicated that 4.3% of patients with incontinence and fistula in ano had indications of Crohn's disease. Follow up of these patients demonstrated that those who were diagnosed with Crohn's took a significantly longer time to heal in comparison with those who didn't have an underlying disease.

### **Conclusion**

It was noted that those who were diagnosed with Crohn's disease took a longer healing time whilst those underwent the standard fistulotomy and cutting seton application healed faster and had a low recurrence.

**OP 2 Linguistic validation of Sinhala translation of International Prostate Symptom Score (IPSS) and assessment of the severity and quality of life in men with benign prostatic hyperplasia using IPSS and WHOQOL-BREF (Sinhala): A hospital-based study**

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**Background**

Benign Prostatic Hyperplasia (BPH) is prevalent among men aged more than 60 years. BPH affects the physical, psychological and sexual aspects of the lives of men with BPH. However, an appropriate tool has not been developed to assess the severity of symptoms and quality of life (QoL) of BPH patients in Sri Lanka. Thus, the present study translated and linguistically validated a world-recognised tool (IPSS) to assess the severity of lower urinary tract symptoms (LUST), and already translated WHOQOL-BREF was administered to assess the QoL in men with BPH.

**Materials and methods**

IPSS was translated into the Sinhala language using international guidelines and employed in this study. IPSS assessed the severity of LUTS. The WHOQOL-BREF Questionnaire Sinhala version was available in the Department of Physiology, Faculty of Medicine, University of Ruhuna, to assess the quality of life among patients with BPH.

A hospital-based comparative cross-sectional study used the IPSS and WHOQOL-BREF as interviewer-administered questionnaires.

**Results**

Within three months, 350 BPH patients with mild (5.7%), moderate (28%) and severe (28.6%) symptoms were enrolled. They all were above 60 years old. Out of them, 70.6% had physically better QoL. Patients with severe IPSS (n=53) reported psychologically poor QoL (n=96), whereas patients with mild-moderate IPSS (n=197) had better QoL in psychology (n=182).

**Conclusion**

The degree of impact on physical and psychological health depends on the severity of LUTS. Linguistically validated IPSS can assess the severity of LUTS.

**OP 7 Robotic Vs Open Pancreatoduodenectomy for Periampullary Neoplasm: A Retrospective Analysis of Peri-operative and Oncologic Outcomes**

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**Introduction**

Despite technically demanding, Robotic Pancreatoduodenectomy (RPD) is popular worldwide due to the inherent benefits of the robotic armamentarium. However, its efficacy over Open Pancreatoduodenectomy (OPD) is still controversial. We compare the perioperative and oncologic outcomes of RPD with the standard OPD.

**Methods**

This retrospective study was conducted from June 2017 to March 2023, where patients who underwent pylorus resecting OPD and RPD for periampullary neoplasm were included. Patient demography, perioperative investigations, intraoperative details, postoperative morbidity and histopathology details were recorded. Adjuvant therapy was given when indicated, and patients were followed up with 6-monthly CT scans for disease recurrence.

**Results**

Out of 114 Pancreatoduodenectomy performed during the study period, 100 met the inclusion criteria: 30 RPD & 70 OPD. Both groups had similar demographic and preoperative parameters. RPD was associated with less blood loss (320 v/s 400 ml,  $p=0.02$ ) but longer operative time (472 v/s 352min,  $p=0.01$ ). The major postoperative complications (Clavien-Dindo ??Grade III (33.3 v/s 25.7%,  $p=0.43$ ) were similar between both groups, with similar readmission (20 v/s 15.7%,  $p=0.601$ ). Both groups had similar oncological outcomes regarding median lymph nodes harvested (16 v/s 16.5,  $p=0.64$ ), margin positivity (13.3 v/s 15.7%,  $p=1$ ), median disease-free survival (15 v/s 16,  $p=0.33$ ), and overall survival

(16 v/s 16, p=0.608).

### Conclusion

RPD is comparable to OPD in terms of major morbidity and oncologic outcomes, with less blood loss and longer operative time, which can be attributed to the learning curve.

### OP 11 Blood Ordering and Utilization Efficiency in Elective Surgical Patients: Retrospective Single Centre Study

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### Introduction

Blood crossmatching and transfusion guidelines and protocols can help save resources. The goal of this study is to evaluate crossmatch and the use of blood products in general surgical procedures. In Sri Lankan surgical practice standardized indices are crossmatch to transfusion ratio (C/T) ? 3.0, transfusion probability (%T) ?30% and transfusion index (TI) ?0.5.

### Materials And Methodology

A retrospective cross-sectional study of 157 patients who underwent general surgical procedures during the period from October 2022 to April 2023 at Base Hospital Diyathalawa was done. Data was collected from the hospital records. Crossmatch to transfusion ratio (C/T ratio), transfusion probability (%T) and transfusion index (TI) were used to evaluate. Patients who underwent massive transfusion and the patients who needed preoperative Hb correction (Hb < 8.3g/dL) excluded from the study.

### Results

Of a total of 157 patients, 85.3% are under general anesthesia. A total number of 210 units were crossmatched for 157 patients, while only 7 units were transfused for 4 patients. Overall indices for the study population are CT ratio of 26.3:1, %T of 2.54% and TI of 0.05.

### Discussion and Conclusion

This study demonstrates that several surgical procedures in practice, including thyroidectomy, cholecystectomy, and appendectomy, involve unwarranted crossmatching where grouping and screening is adequate. We further urge that this

issue be studied further and a scientific strategy for blood consumption be implemented.

### OP 19 Study on deceased donor organ donation and transplantation at Polonnaruwa –promising start in the era of COVID – 19 pandemic 2020-2022

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### Introduction

Endemic CKDu has been on rise at North-Central Province. Transplantation offers best survival and cost effectiveness compare to dialysis. COVID 19 pandemic had devastating impact on organ transplantation. Deceased donor program (DDP) in Sri Lanka still in its infancy. We took initiatives to develop DDP at Polonnaruwa during a challenging era. Objectives We report experience of deceased donor organ harvesting and transplantation from 2020–2022.

### Methodology

Retrospective study collected data over two years. Donor organs, recipient characteristics and outcome were evaluated. Results and discussion Fourteen solid organs were harvested by six brain dead donor retrievals. Five kidneys were implanted locally, where seven kidneys and two livers were offered to main centers. Median age of brain dead donor was 37 years (range 18-56), male to female ratio 5:2. Trauma led in brain injury in 83%. Seven kidneys got complex anatomy including multiple arteries. Median age of recipients at Polonnaruwa was 41 years (34-51). Male to female ratio was 4:1. CKDu was etiology in all. Average cold ischaemic time (CIT) was 316 minutes (210–720). Delayed graft functions were noted in 60%. Serum creatinine on day 7 was 160  $\mu$ mol/L. At post transplant 6 months 80% had satisfactory graft functions. One death happened due to duodenal perforation at 8th month. All diagnosed with new onset diabetes (NODAT)

### Conclusion

DDP at Polonnaruwa is at early stage. During the era of global challenge our initiatives for DDP led to significant positive

impact on lives. Improving public awareness and staff education will lead to maximum utilization of deceased organs in future.

#### **OP 26 A Prospective perioperative outcome Evaluation of Video Endoscopic Inguinal Lymphadenectomy vs. Conventional Open Inguinal Lymphadenectomy in Carcinoma Penis.**

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**King Georges Medical University, Lucknow, India**

##### **Introduction**

Inguinal node metastasis is the most important prognostic indicator in cases of Carcinoma Penis. Conventional Open Inguinal Lymphadenectomy (COIL) is reported to have 30 to 50 % skin related complications. Video Endoscopic Inguinal Lymphadenectomy (VEIL) reported low complication rate with same oncological outcome . We plan to do prospective evaluation COIL v/s VEIL in clinically impalpable as well as palpable low volume inguinal lymph nodes.

##### **Method**

Total 35 patients of Penile Carcinoma were enrolled from 2012 to 2020 mean age 51 yr (36years to 70 yrs). COIL in one Groin and VEIL on other side of each patient. Perioperative Results in terms of Operative Time , Intra-operative Complications, Conversion, Skin related Complications, of two groups were compared.

##### **Results**

Operative time 68 v/s 130 minutes for COIL vs VEIL . No intraoperative complications in both groups . Skin related complications are nil in VEIL while in COIL 31% Superficial skin changes, 22 % skin dehiscence & 18 % has Lymphoedema. Mean Lymph Node yield in COIL v/s VEIL(9.6v/s 10) . Mean drain duration is 4.5 vs 7.8 days and drain output is 92ml Vs 138ml in COIL v/s VEIL.

##### **Discussion & Conclusions**

In our early experience, VEIL is a feasible & safe option for non-palpable and palpable low volume inguinal lymph nodes in carcinoma Penis. VEIL allows same number of the inguinal lymph nodes removal as in CIL with significantly low perioperative surgical morbidity with comparable

oncological outcome. Although long term follow up studies are needed.

#### **OP 29 Dimensions of the ascending aorta; computerized tomography-based study**

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##### **Introduction**

Ascending aorta origins from the left ventricle of the heart at the level of aortic valves and ends at the beginning of the arch of the aorta at the level of the 4th thoracic vertebra(T4). Dimensions of the ascending aorta vary according to gender, age, and race. In Sri Lanka, there were no such studies done to measure ascending aortic dimensions.

##### **Methodology**

The patients who had undergone contrast-enhanced computerized tomography (CECT) for non-aortic related illnesses done in the radiology unit in National Hospital Sri Lanka were analyzed retrospectively.

##### **Results**

A total of 50 CECTs were analyzed. The mean age was 58.3 years (20-81). 30 (60%) were males. 21(42%) CECT scans were excluded due to anatomical variations of the thoracic aorta. The mean diameter at the origin of the ascending aorta(D1) was 27.85mm (33.9-22.5). The mean diameter at the end of ascending aorta(D2) was 27.7mm (21-34). The mean diameter at the midpoint of ascending aorta in men was 28.76mm (22-36) (D3) and in women it was 25.95mm (19.8-34.6) (D4). These values in a Western study were 33.2mm and 30.4mm respectively. The mean length of the ascending aorta was 65.98mm (36-101)(L1).

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

In Sri Lankan males and females have smaller ascending aortic diameters compared to the Western population. This should be taken into consideration when ascending aortic aneurysms and dilatations are defined, especially when the threshold diameter for intervention is determined.

## **OP 32 Clinical characteristics of patients with pancreatic cystic neoplasms presenting to a tertiary care centre in Sri Lanka**

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### **Introduction**

Pancreatic cystic neoplasms (PCN) are usually diagnosed incidentally. These neoplasms display a spectrum of behaviour. Neoplasms with benign characteristics need only follow up however, malignancies should not be misdiagnosed. The objective of this study was to describe the clinical characteristics of patients presenting with PCN.

### **Methods**

A retrospective study was conducted at a tertiary care centre including all newly diagnosed patients presenting with PCN based on radiological (n=37) criteria for a period of 2 years. A descriptive analysis was performed with respect to clinical and treatment characteristics which were collected through a custom-made database.

### **Results**

The majority were females (n=26, 70.3%). The mean age at presentation was 50 (range: 16-79) years. The majority of the neoplasms were found in the pancreatic head (n=16, 43.2%) followed by body (n=10, 27%) tail (n=8, 21.6%) neck (n=2, 5.4%). Of the neoplasms, solid pseudopapillary neoplasms (SPN) was the commonest (n=11, 29.7%) the remainder were Intraductal papillary mucinous neoplasm (n=10, 27%) serous cystic neoplasms (n=9, 24.3%) and mucinous cystic neoplasm (n=7, 18.1%). Most (n=23, 62.2%) underwent surgical management. Post-operatively two complications were seen which include a pancreatic leak which settled spontaneously and a bile leak in a patient who underwent simultaneous liver resection which was managed with ERCP and stenting. Follow up revealed local recurrence in a patient with SPN who underwent distal pancreatectomy.

### **Discussion & Conclusion**

In this Sri Lankan cohort, pancreatic cystic neoplasms had a female preponderance. Majority were in the pancreatic head. The commonest neoplasm being SPN. The majority

underwent successful surgical treatment where two patients developed complications and one patient reported a local recurrence.

## **OP 15 Intra-lesional vs. oral steroid treatment for idiopathic granulomatous mastitis: Experience of two tertiary breast care units**

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### **Introduction**

Idiopathic granulomatous mastitis (IGM) is a chronic, recurring, inflammatory breast disease which is challenging condition to treat. We compared the clinico-pathological and treatment outcomes of IGM patients treated with intra-lesional vs. oral corticosteroids.

### **Methods**

A retrospective and prospective analysis was carried out in histologically diagnosed patients with IGM in two tertiary breast care units between 2021 and 2023. Data were collected on clinico-pathological features and response to treatment.

### **Results**

The study included 30 patients diagnosed with IGM. Seventeen and twenty-two patients received intra-lesional (group 1) and oral steroids (group 2), respectively. The main complaints were predominantly local pain, inflammation and breast mass in both groups. There was no significant difference in the age, mean duration of complaints, number of children and mean breastfeeding time. In group 1, all achieved complete response at the end of the third course of treatment (mean – 2 months) compared to group 2 in which, complete resolution was achieved in a mean duration of 3.5 months. One patient in group 1 and 4 patients in group 2 had abscess drainage and one patient in group 2 underwent surgical excision. Systemic side effects of corticosteroids were only seen in group 2. Higher compliance was noted in group 1.

## Conclusion

In our experience, intra-lesional steroid therapy for IGM was associated with faster response to treatment with better compliance and minimal systemic side effects compared to oral steroid therapy.

## OP 16 Comparison of aesthetic outcomes of Simple interrupted suturing with combined dermal and subcuticular suturing in pediatric facial laceration suturing

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### Introduction

Facial lacerations are a common encounter in pediatric trauma. The final cosmetic outcome is paramount since the face is one of the most aesthetic components of the body. The inability to remove sutures without general anesthesia is a unique problem in pediatric population.

### Methods

A prospective study was conducted in the Department of Plastic and reconstructive surgical unit of a pediatric tertiary care hospital. Data on Demographics, injury zone, and depth of laceration were collected. The outcomes of modified facial suturing (MS group) with dermal suturing combined with subcuticular suturing were compared with traditional simple interrupted suturing using rapid absorbing sutures (TS group). Objective assessment of the final scar was performed using Stony Brook Scar Evaluation Scale (SBSSES) at the end of 1 month. The time to the disappearance of rapidly absorbing sutures was recorded in the TS group.

### Results

Out of 262 trauma referrals from January to May 2023, 149 Had facial lacerations. Majority were female (n=94,63%) with average age of 5.7 years. 85% (n=128) were related to falls and majority (n=87,58%) were forehead lacerations followed by cheek and nose lacerations. Majority had involvement of muscle layer (n=81,54%) and 21% (n=32) had periosteal involvement. MS and TS groups had 72,77 children respectively. MS group had a statistically significant higher mean SBSSES score of 4.93 ( $p < 0.001$ ). The rapidly

absorbing suture was retained for a mean of 23.4 days (range 19-38).

## Discussion and conclusion

Combined dermal and subcuticular suturing has a higher aesthetic outcome in pediatric facial laceration suturing and it alleviates the problem of retained absorbing sutures.

## OP 17 Comparison of traumatic amputations patterns of upper limb and success of reperfusion in plastic and reconstructive surgical department at tertiary care hospital- Sri Lanka in year 2022 -2023.

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### Introduction

The Outcome of replantation and revascularization depends on injury pattern and expertise of the managing center. This study aimed at identifying and comparing patterns of injury and outcome of traumatic amputations in 2022 and 2023.

### Methods

A prospective study was conducted at plastic and reconstructive surgical department at tertiary care hospital in Sri Lanka. The data on demographics, injury pattern and 30-day viability were analyzed for 2 consecutive years.

### Results

There is a reduction in number of total admission in January – June 2022 and 2023 from 1486 to 908 respectively. 51 and 30 patients had traumatic amputations. Mean ages were 35, 36.1 ( $p=0.74$ ) with male predominance (n=70,86%). The average age of 34.3 years (range 12-70) with male predominance (n=44;86%). Majority were ASA I patients and dominant hand was affected in 54(67%). According to mechanism of injury, 44(54%) machinery crush injuries, sharp cut 33(41%), and avulsions 4(5%) were noted. 25(58%) of sharp cuts are related to assaults. There is a significant reduction in assault related amputations. Finger amputations accounted for 69% (n=56) and 22% (n=18) were related to metacarpal and wrist. Out of 56, 19(34%) had thumb amputation and 19(34%) had more than one finger

amputation. Reperfusion was indicated in 81 patients and surgeries were performed in 37(46%). At the end of 30-day follow-up, successful reperfusion was achieved in 73%(n=27) with equal success rates in both year 2022 and 2023.

### Conclusion

The unit success rates are comparable in consecutive 2 years and further improvement can be achieved by analysis of failed cases

### OP 18 Long Term Outcomes of Frey's procedure for Chronic Pancreatitis - A Single Center Experience

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### Introduction

Surgical treatment of chronic pancreatitis is indicated for intractable pain. Frey's procedure is an accepted treatment for this disease. This study aims to determine the long-term outcomes of chronic pancreatitis after Frey's procedure.

### Methodology

A retrospective study was conducted among patients who underwent Frey's procedure between 2018 to 2020 at Colombo South Teaching Hospital. A long-term ( $\geq 3$  years) follow up was performed by conducting in-person interviews.

### Results

A total of eleven patients were included, two lost from follow up. The mean age at the time of surgery was 38.44 ( $\pm 10.35$ ). The mean pain score (out of 10) was 9.22 before surgery, which was 1.33 after surgery. All the patients needed opioid analgesics before surgery, while none required after surgery. Endocrine insufficiency before and after surgery are 22.2% and 44.4% respectively. One developed surgical site infection while others didn't develop any complications. After the surgery, weight gain, good appetite, and normal bowel frequency were observed in 4(44.4%), 7(77.8%), and 6(66.7%) patients respectively, showing them not to have exocrine failure. According to the SF-36-score, the mean

scores for physical functioning, physical health limitations, emotional problem limitations, energy/fatigue, emotional well-being, social functioning, pain, general health are 95.00, 86.11, 88.89, 73.33, 84.00, 90.28, 92.78, and 65.00 respectively.

### Conclusion

Frey's procedure for chronic pancreatitis can provide pain relief, preservation of maximum pancreatic function and a satisfactory quality of life for the patients.

### OP 25 Outcomes and quality of life among chronic pancreatitis patients in a tertiary care center in Sri Lanka

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### Introduction

Chronic Pancreatitis (CP) has multiple complications and decreases quality-of-life (QoL). This study aims to describe outcomes and compare QoL among CP patients managed surgically, endoscopically and conservatively in a tertiary care center over 3 years.

### Method

A descriptive cross-sectional study was performed among follow-up CP patients. QoL index values were assessed using the validated EQ-5D-5L questionnaire. The significance of differences in distribution of index values among the three intervention categories were tested using the Kruskal-Wallis Test ( $p=0.05$ , CI=95%) Results – Of 112 recruited CP patients (median age – 42, male - 73.2%), 62.5% (n=70) had alcohol as the etiology and 47.3% (n=53) had ever smoked. Half (n=56) were diabetic, 50.9% (n=57) had steatorrhea, 85.7% (n=96) had chronic abdominal pain and 10.7% (n=12) had obstructive jaundice at some point. 48.2% (n=54) had ERCP and stenting as the only intervention, 27.7% (n=31) underwent surgery and 24.1% (n=27) were managed conservatively. Mean QoL index values of post-surgical patients (0.73397) were lower than that of ERCP (0.85681) and conservatively managed (.91307) patients. The differences in distribution of QoL index values between post-

surgical patients Vs conservatively managed and Vs ERCP patients were statistically significant (H (2),  $p=0.02$ ).

### Discussion and Conclusions

The decrease in QoL index values as level of intervention escalated from conservative to endoscopic to surgical is likely due to increasing severity of disease necessitating such, with interventions having limited benefit in improving QoL.

### OP 33 Low-risk thyroid cancer in Sri Lanka: Are we overusing radioiodine?

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### Introduction

Radioactive iodine (RAI) is the most effective treatment to ablate remaining thyroid tissue following total thyroidectomy in differentiated thyroid cancer. Evidence suggests non-treatment with RAI is not inferior to adjuvant RAI treatment in low-risk thyroid cancer patients.

### Methods

We retrospectively analysed prospectively collected data from a sample of 2631 patients with differentiated thyroid cancer who underwent total thyroidectomy in 2015–2023 at a dedicated tertiary cancer treatment centre in Sri Lanka.

### Results

The majority were females ( $n=2232$ , 84.8%) with a mean age of 43 years ( $SD=13.3$ ) at diagnosis. The commonest pathological type was papillary variant (81.3%), followed by Follicular (17.3%) and Hurthle (1.3%). The tumor stage was T1 in 50.2% of patients. Nodal staging of N0 was seen in 82.7% of patients. Metastatic disease was documented in 1.0%. A total of 1131 (41.0%) patients who were T1N0M0 without aggressive histological features were categorized as low-risk. Of this low-risk group, 59.2% ( $n=670$ ) had received RAI treatment. The mean duration from surgery to RAI treatment was  $7.2 \pm SD6.3$  months. Out of moderate to high risk patients ( $n=1500$ ), who required RAI treatment, 1043 (69.5%) received it. The delay was  $8.0 \pm SD6.3$  months for moderate to high risk patients.

### Discussion and Conclusions

Overtreatment with RAI was commonly seen in patients with low-risk thyroid cancers, while moderate to high-risk patients who required the treatment were delayed more than the low-risk population. This is a likely reason for the observed long delays in treatment. Avoiding RAI in low-risk thyroid cancers will help reduce delays, cut costs, and minimize treatment-related side effects.

### OP 34 Surgical performance anxiety and mental well-being among postgraduate surgical trainees in Sri Lanka

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### Introduction

The psychological health of a surgeon affects their mental well-being, their ability to operate, and surgical outcomes. Effect of surgical performance anxiety (SPA) is poorly explored and is a timely necessity. The aim of the study is to investigate SPA and its associated factors.

### Method

We conducted a cross-sectional study using an online questionnaire where we used validated SPA assessing questionnaires. The wellbeing was assessed using the Short Warwick-Edinburgh Mental Wellbeing Scale.

### Results and Discussion

A total of 64 responses were collected from current pre-MD surgical trainees. Majority of the cohort was first year trainees. The mean age was 32.1 years and 54.5 % had prior surgical experience. 97% of the sample was males.

SPA was experienced by 66.7% with 54.5 % stating a specific trigger which was mainly the presence of an intimidating senior. Commonest physical symptoms of SPA were tremor and sweaty palms while difficulty in concentrating and lack of confidence were the commonest negative perceptions. A total of 93.9% felt that SPA will negatively affect the surgical performance and outcomes. . 67% had used distraction techniques and 4.5% had taken medication to overcome SPA

The trainees with SPA reported significantly worse well-being compared with trainees who did not experience SPA. ( $p<0.05$ )

**Conclusion**

The majority of Sri Lankan surgical postgraduate trainees experience SPA and felt that it negatively impacts their outcomes and mental well-being. More open culture of sharing and acknowledgment is recommended.

## POSTER PRESENTATIONS

## **PP1 Clinical-Epidemiological Profile of Acute Appendicitis: Retrospective Analysis among Patients in Teaching Hospital, Jaffna**

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**Department of Surgery, Faculty of Medicine, University of Jaffna, Sri Lanka**

### **Introduction**

Appendicitis is a common clinical condition related to the surgical abdomen, with an estimated lifetime prevalence of 7%. Appendectomy is done to prevent further complications due to appendicitis. In addition, a histopathological examination of the appendectomy specimen is performed to get an accurate clinical-epidemiological profile of acute appendicitis.

### **Methods**

A retrospective analysis was done of 1341 patients who underwent an appendectomy in Teaching Hospital, Jaffna, from January 2019 to December 2022. Gender, age, procedure date, indication for appendectomy, and histopathological findings were collected from the Bed Head Ticket (BHT) and histopathological reports after seeking ethical approval.

### **Results**

A total of 1341 patients were studied, including 794 males (59.28%) and 545 females (40.72%), with a mean age of 28 ( $\pm 15.636$ ) years. Most appendectomies happen in the age group of 21-40. Histopathological findings reported acute appendicitis (68.53%), chronic appendicitis (1.49%), neuroendocrine tumour (NET) (0.22%), normal appendix (4.25%), ruptured appendix (1.72%), and other benign changes (23.79%). More patients underwent appendectomy in 2019 (28.34%), with the highest number of appendectomies reported during October 2019 ( $n=43$ ).

### **Discussion & Conclusions**

The present study shows the major clinical-epidemiological profile of acute appendicitis, such as acute appendicitis, chronic appendicitis, and neuroendocrine tumour (NET). Though the number of appendectomies reported in 2019 was high and the highest in October of the same year, no

significant seasonal variations were observed. The histopathological lab findings of the appendectomy specimens help predict and treat further complications.

## **PP2 Current knowledge and perception related to Advance life support (ALS) among medical and nursing officers in a District General Hospital**

**Abdul Najeem Mohamed Sanfar, Thabitha Thayalanesan, Udaya Samarajeewa**  
**District General Hospital Trincomalee, Sri Lanka**

### **Introduction**

Knowledge regarding Advance life support (ALS) and Resuscitation skills are crucial when managing a victim of cardiac arrest. Lack of knowledge and skills among health care professionals has been identified as a contributing factor in poor outcome. The objective of this survey is to assess the knowledge regarding ALS among the Medical and Nursing officers in our institution.

### **Method**

An institutional based descriptive cross-sectional survey was conducted from December 2022 to January 2023. Standardized questionnaire was distributed and completed by the medical and nursing officers. Data was analysed by using Epi Info 7.2. software.

### **Results**

There were 202 responders with 71% of them having previous ALS training. The mean score for those who had prior ALS training was 59.34 % and for those who haven't got ALS training was 58.15%. When divided by the working environment (High risk / Low risk for cardiac arrest), 43% of the sample were in high-risk area and had a mean score of 63.51%. Those working in low risk environment had a mean score of 55.6%. When statistically analyzed ; those working in high-risk areas had a better knowledge compared to low-risk area. ( $P<0.05$ ) There was no significant effect on previous ALS training on the current knowledge ( $P>0.05$ ).

### **Conclusions**

Knowledge regarding ALS fades out with time and needs regular updating. Those who are working in high-risk area have better knowledge due to frequent exposure to cardiac

arrests. A regular refresher course is justifiable in the institutional level to maintain

### **PP3 Management of appendicular mass: The current practice and perception among consultant surgeons in Sri Lanka**

**Mansoor Mohammed Malik, Udaya Samarajeewa**  
**District General Hospital Trincomalee, Sri Lanka**

#### **Introduction**

Appendicular mass is one of the most common complications of acute appendicitis. Management of appendicular mass is surrounded in controversy in current practice among surgeons. The commonest seems to be a conservative management combined with an interval appendicectomy. Other options include early appendicectomy or completely conservative approach without interval appendicectomy. Our aim was to find out the perspectives and management approaches that are preferred among the consultant surgeons currently practicing Sri Lanka.

#### **Material and Method**

An online structured questionnaire was distributed among the consultant surgeons in Sri Lanka. It was made in google forms and made accessible to participants via email. It was anonymous and consisted of 17 questions. Data collection was done from December 2022 to January 2023.

#### **Results**

A total of 51 fully completed responses were received. None of them were excluded. Of the 75% of surgeons who offered conservative approach as the preferred management, 61% of them gave Co-amoxiclav and Metronidazole combination as the 1st line antibiotic with minimum duration of 5 days. Remaining 25% of surgeons who offered immediate surgery preferred open and laparoscopic approach equally. 44% of the initial conservative management group (75% of total sample) offered interval appendicectomy around 8 weeks (40%) and preferred laparoscopic approach (76%).

#### **Conclusion**

Majority of the surgeons preferred a conservative approach for managing appendiceal mass and nearly half of them

offered

interval appendicectomy due to various reasons. Nearly one third of the surgeons continue to offer a complete conservative approach.

### **PP4 Effectiveness of a basic laparoscopic skills workshop on enhancing the skills of surgical trainees ; a prospective cohort study**

**Udaya Samarajeewa, Rameendra Senarathne, Bawantha Dilshan Gamage**  
**District General Hospital Trincomalee, Sri Lanka**

#### **Introduction**

Basic dry lab laparoscopic skills workshops are used in the surgical training programs to enhance the psychomotor skills of the trainees. There is lack of objective data on their effectiveness. The aim of this study was to explore the effectiveness of a 12 hours laparoscopic skills workshop in enhancing the practical skills among the trainees.

#### **Methods**

This was a, single-arm, repeat measure, prospective cohort study design. 77 general surgical trainees participated in a one and half day laparoscopic skills workshops consisting of lectures, videos, and hands-on training. Study conducted at a skills lab from 2017 to 2022. The pre-workshop skills scores of trainees were assessed and compared with immediate post-workshop scores using a structured assessment protocol by the same faculty. Data was analysed with SPSS software.

#### **Results**

All trainees irrespective of their experience showed significant improvement. The results of our study indicated that mean post-workshop scores were significantly higher compared with mean pre-workshop scores ( $p < 0.001$ ). Even in trainees who can independently perform a basic procedure showed a significant improvement in their interval scores ( $P < 0.05$ ).

#### **Conclusions**

A well structured basic laparoscopic course is an effective way to enhance manual dexterity and laparoscopic skills. These improvements can be accomplished in a cost-effective

way. These skill courses will speed the acquisition of competent operative skills

#### **PP 6 Short term outcomes of arteriovenous fistula creations done at peripheral hospital**

**S Sancheevan, LEDI Kumari, P K K H Halpage**

**Base hospital Wathupitiwala, Sri Lanka**

##### **Introduction**

Patients with end stage kidney disease need regular haemodialysis. Arteriovenous fistula is the preferred access for regular haemodialysis. Objectives Objective is to assess the short term outcomes of arteriovenous fistulas created at Base hospital Wathupitiwala

##### **Method**

All patients who had undergone arteriovenous fistula creation from 29.10.2022 to 25.2.2023 at base hospital Wathupitiwala were included in the study. All patients underwent ultrasonic assessment of the vessels before surgery at operating theater. All the procedures were performed under local anesthesia. Patients were followed up at regular interval till maturation of AVF.

##### **Results**

A total of 42 patients underwent 48 procedures for arteriovenous fistula creation. The Mean age was 55.9 years and 35 patients were males (83.3%). Brachiocephalic AVF was the most commonly performed procedure (24, 50%) followed by radiocephalic AVF (20, 41.6%). Two patients underwent brachiocephalic AVF creation. Seventeen short term complications were encountered in initial follow up. The common complications were haematoma, minor bleeding from surgical site and superficial wound infection which were managed without any intervention. Four patients came with non functioning AVF which needed re-creation. Two patients developed significant oedema. All patients had functioning AVF at the end of initial follow

##### **Conclusion**

Preoperative ultrasonic assessment of artery and vein is crucial in the creation of successful AVF. Regular follow up is necessary in the initial period to detect and treat early complications. Keywords AVF – Arteriovenous Fistula

#### **Pp7 Validation of air score assessment of acute appendicitis in the local population**

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##### **Introduction**

Acute appendicitis is the most common cause of acute abdomen with the peak incidence in the 20s and individual lifetime risk of appendicectomy is 8.6% for males and 6.7% for females. Appendicitis inflammatory response (AIR) scoring system is used as an aid for early clinical diagnosis and predicting the severity of acute appendicitis. (0-4: low probability, 5-8: mild probability, 9-12: high probability)

##### **Method**

Retrospective analytic cross-sectional study conducted among 47 patients by using the information which satisfies the AIR score criteria. Results: In this population mean age was 27.5 ± 16.6 with male predominance (59.6%). Vomiting (55.3%), RIF pain (100%), and a medium degree of rebound tenderness (36.2%) were common in this population. Negative appendicectomy rate of 14.9% and were found in the low probability group (Average AIR score-1.85). 6.4% of the population with positive findings in appendicectomy were belongs to the high probability group (Average AIR score-9.0).

##### **Discussion**

All patients were assessed according to the AIR score. The highest presentation of inflamed appendixes was found in the low probability group, probably due to late presentations or analgesics & antibiotic usage before proper diagnosis. All the patients with negative appendicectomy were found in the low probability group. High CRP and polymorph leukocyte levels have been noted in the high probability group compared to other groups.

##### **Conclusion**

The AIR score has high specificity than sensitivity when it's come to the local population, so this score can be used to minimize the number of false positive diagnoses.

## **PP8 Audit on completeness of Operation-Notes at a single surgical unit in a tertiary care center.**

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**Sri Jayawardanapura General Hospital, Sri Lanka**

### **Introduction**

A complete Operation-Note is important in, patient management ranging from immediate post operative care to long term follow up. Additionally, can be produced as medico-legal evidence. Incomplete Operation-Note is a common cause for mismanagement of patients and a source of weakness in surgeon's defence in a medico-legal case. Audit was carried out to determine the completeness of the Operation-Note as a whole and of individual criterion.

### **Methods**

Retrospective analytical study was carried out for a period of 2 months. A standard Operation-Note model is adapted at Sri Jayawardhanapura General Hospital composing of 11 criteria including some criteria prescribed by the Royal College of surgeons-GOOD SURGICAL PRACTICE 2013 guideline. These 11 criteria were checked individually for completeness and the Operation-Note as a whole (Table 1).

### **Results**

Of 126 Operation-notes, completeness as a whole was only 50% (n=63). However individually, all 11 criteria had a completeness more than 80%. 8 criteria had a completeness more than 90% and rest (n=3) had completeness less than 90%. Patient's name and the ward had the highest percentage of completeness, 98.4% (n=124) and 97.6% (n=123) respectively. Mode of suturing and the Name of the anaesthetist with designation were the least recorded, 80.9% (n=102) and 86.5% (n=109) respectively.

### **Conclusion**

Audit shows, though the completeness of recording each individual criteria is high, the overall completeness of the Operation-Note is low. It is advisable to educate doctors on proper recording of Operation-Note and the medico-legal implications from failing to do so. Re-audit after such training is necessary.

## **PP9 PICTURE ARCHIVING AND COMMUNICATING SYSTEM (PACS) in neurotrauma; a cost-effective way forward? Single center experience in a developing country.**

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### **Introduction**

PACS is a medical imaging technology, providing economical storage and remote access to images from multiple modalities. Unavailability of neurosurgical opinion at peripheral units and fear of medicolegal implications has led, transfer of majority of patients with Traumatic Brain Injury (TBI) to tertiary care centers. Study aimed at determining the importance of PACS, in neurotrauma management and avoiding unnecessary transfers.

### **Methods**

Retrospective observational study carried out for 2 months, on communications made between peripheral hospitals and a Neurosurgical unit at a tertiary care center via a primitive PACS model.

### **Results**

Majority (87.5%; n=70) were males with mean age of  $49.15 \pm 22.3$  years. Main cause of TBI was Falls (43.75%; n=35) followed by RTA (42.5%; n=34). Of the total 80 referrals made, majority (58.75%; n=47) were informed via PACS and the rest were transferred directly without informing. Mean Response time of Neurosurgeon's opinion was  $21.3 \pm 28.5$  minutes. Out of informed referrals, 31.9% (n=15) were taken over for active neurosurgical management. 30.3% (n=10) of direct transfers were taken over but only 4 underwent surgery. Of the patients transferred directly without informing via PACS, majority (69.69%; n=23) were transferred back. Of the informed patients, there was no statistically significant difference in the response time between transferred and not-transferred groups. Most referrals were made by CATH (23.75%; n=19) followed by CNTH (11.25%; n=9) and DGH Chillaw (10%; n=8).

### **Conclusion**

It is important to introduce, implement and adhere to a system providing peripheral centres an easy access to a neurosurgeon's opinion. PACS would improve the response time and minimise the financial burden and human hour

wastage due to unnecessary transfers in a resource limited setting.

#### **PP10 Outcomes of Parathyroid Cancer in A Southeast Asian Cohort**

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##### **Introduction**

Parathyroid carcinoma (PTTC) is a rare entity and is an unusual cause of primary hyperparathyroidism. Incidence of PTTC has been rising with 6.6 cases per 10 million and is attributed to early diagnosis. The mainstay of treatment is radical surgery with en bloc resection of disease but recurrences are common and almost halve the survival in these patients.

##### **Methods**

All patients who underwent parathyroid surgery during 2000 – 2023 at National University Hospital, Singapore were assessed. Patients with PTTC were selected and their symptomatology, biochemical profile, imaging, treatment modalities, and outcomes were analyzed.

##### **Results**

903 patients had surgery on the parathyroid and 9 (0.9%) were for PTTC. The mean age of the patients was 67 (range 36 – 89), with the female: male ratio being 6:3. A palpable neck mass was detected in 3 (33.3%) patients. All 9 of them presented with hypercalcaemia and 8 patients had very high PTH. Average pre-operative PTH was recorded as 102 pmol/L and the highest ionized Calcium was noted as 3.32mmol/L. Ultrasound neck and MIBI were performed on all resulting in only 1 false positive report. Seven patients underwent en bloc excision while the other two had focussed parathyroidectomy. Recurrences were recorded in 2 (22.2%) patients treated with a focussed approach. One patient had downstream lung mets and the other neck parathyromatosis.

##### **Discussion & Conclusions**

Parathyroid carcinoma continues to be an uncommon cause of primary hyperparathyroidism and the best cure is achieved with en-bloc excision.

#### **PP11 Video Assisted Thoracoscopic Surgery (VATS) in Management of Empyema in children.**

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**Department of cardiothoracic surgery, Lady Ridgeway Hospital for Children, Colombo 08, Sri Lanka**

##### **Introduction**

Video assisted thoracoscopic surgery (VATS) for empyema is technically challenging in paediatric age. Aim of this study is to analyse the VATS management and outcomes in children.

##### **Methods**

Study setting – Cardiothoracic surgical unit at LRH. Study period - 01/02/2022 to 31/03/2023.

Study population – All the children underwent Surgery for Empyema.

Inclusion criteria – All Children who underwent VATS for Empyema using 5mm 30degree Camera telescope under general anaesthesia with lung isolation with single port access.

Exclusion criteria – Children who had VATS converted to open surgery were excluded.

Study method - observational retrospective cross-sectional study.

##### **Results**

19 children had VATS. Age range is 3 months to 14 years. Infants (1), Toddlers (0), Preschool Children (9), School Children (6), Adolescents (3). All had CECT imaging showing multiloculated collections and trapped lung. 12 had radiological and clinical features of necrotising pneumonia. Operative time ranged from 30 to 120mins. Average surgical time is 45mins. 18 children were extubated within 24hrs following surgery while 1 child was on ventilator for 5 days. 18 children stepped down from ICU 24hrs following surgery. Average number of days with intercostal drains following surgery was 4 days. 2 had persistent air leak at 7days post-op, 1 underwent surgery for persistent air leak. 18 children followed up at clinic in 6 weeks with full clinical recovery. In hospital mortality at 30days post-op was 5.26%.

##### **Conclusion**

VATS for empyema in children can be done with good clinical outcome.

## **PP 12 Knowledge and practices regarding diagnosis and initial management of hand infections among pre-intern doctors**

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### **Introduction**

Even though hand infections are less infrequently encountered it causes significant functional impairment without proper treatment. This study aimed to assess the knowledge and practice regarding hand infections among pre-inter doctors in Sri Lanka.

### **Materials and methods**

A descriptive cross-sectional study among is performed using a self-administered online questionnaire on knowledge and practice regarding diagnosis and management of hand infections. Responses were marked on multiple choice questions and analyzed.

### **Results**

Out of 141 responders, the majority were female 57.4% (n=81). The majority (n=130;92%) had encountered hand infections at least once a month or less. The median score for the questionnaire was 20 (mode 20, range 14-25). The average knowledge of identification of hand infections was 72.4% and the average knowledge of management was 87.8%. However, the knowledge regarding hand abscesses and extension of deep infections of hand was 39%. The majority 89.4% (n=126) knew the importance of starting antibiotics, 60.2% (n=85) knew about the importance of early rehabilitation with exercise but only 21.3% (n=30) knew the correct position of safe immobilization.

### **Discussion and conclusions**

The majority had less frequent encounters with hand infections but had average knowledge of the identification and management of hand infections. A significant number of pre-intern doctors were lacking knowledge on the deep infections, abscesses of the hand and correct position of safe immobilization which are one of the important elements in hand rehabilitation.

## **PP13 External breast prosthesis use, its influencing factors and the impact on quality of life among postmastectomy patients in Sri Lanka**

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### **Introduction**

External breast prostheses (EBP) have been identified for improving the quality of life (QOL) following mastectomy in other countries. Studies have also been conducted on the QOL of postmastectomy women in Sri Lanka, but not in relation to their EBP use or its impact. Thus, the study objective was to describe EBP use, its influencing factors and the impact on QOL among cancer patients in Sri Lanka.

### **Methods**

A cross-sectional study was conducted among non-metastasized biopsy-proven breast cancer patients who have undergone mastectomy at least six months ago. They were recruited systematically from post-mastectomy follow-up clinics. An interviewer-administered-questionnaire obtained data on socio-demographic characteristics, EBP use and QOL assessed under several domains using a valid tool. The influencing factors were assessed using Chi-squared test at 0.05 significance.

### **Results**

The sample (N=188) comprised current users (64.5%), former users (4.1%) and never users (31.4%) of EBP. The commonest reason for using EBP was to mimic the natural breast, while that against EBP use was poor awareness and accessibility and being embarrassed to use EBP. Women who were young (66.7% vs. 64.1%), single (83.3% vs. 61.2%), employed (76.2% vs. 62%) and wealthy (60% vs. 75%) were more likely to use EBP than others, although these differences were non-significant ( $p>0.05$ ). Compared to previous/never users, a higher proportion of current EBP users were satisfied with their QOL- overall and in individual domains ( $p<0.01$ ).

### **Conclusions**

Knowledge of EBP and an uninterrupted EBP supply should be integrated into postmastectomy rehabilitation programs to improve their QOL.

#### **PP14 Impact of Nasogastric Tube Exclusion After Minimally Invasive Esophagectomy For Esophageal Cancer-A Comparative Analysis**

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##### **Introduction**

Though Enhanced recovery after surgery (ERAS) protocols have suggested either early removal or no nasogastric tube (NGT) across cervical esophagogastric anastomosis (CEGA), it is still being used regularly. We studied the impact of the exclusion of the NGT after CEGA and compared it with its early removal.

##### **Methods**

Retrospective analysis of data where esophagectomy patients for esophageal cancer were divided into groups: Group 1- NGT placed and removed on a post-operative day (POD) 3 and Group 2- NGT was not placed across CEGA. The primary outcome was the incidence of an anastomotic leak, and the other variables compared were hospital stay, pulmonary complications, and the need for NGT reinsertion.

##### **Results**

Out of 50 patients, 30 in group 1 were compared with 20 in group 2. The median age of the patients was comparable ( $p = 0.5$ ), and the tumor was located mainly in the lower esophagus in two groups ( $p = 0.6$ ), with all patients were squamous cell carcinoma. The total incidence of anastomosis leak was 14%, comparable in both groups (5 Vs 2,  $p = 0.6$ ). The median hospital stay was significantly less in the no NGT group (7 Vs 6,  $p=0.03$ ) with comparable Clavien-Dindo complications  $>IIIa$  (4 Vs 1,  $p=0.6$ ). There was no perioperative mortality; one patient in each group had NGT reinsertion for conduit dilatation.

##### **Conclusion**

The omission of an NG tube after performing CEGA post-esophagectomy did not impact the anastomotic leak rate with comparable complications and a shorter hospital stay.

#### **PP 15 Soft tissue infections due to predisposing comorbidities carry a major health cost in the rural population.**

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##### **Introduction**

Soft tissue infections among rural populations are common. It results in significant morbidity and major impact on this populations socioeconomic status. This study was conducted to describe the pattern of soft tissue infections, their severity, underlying comorbidities, and health cost.

##### **Method**

A prospective descriptive study was conducted among patients admitted to a surgical unit at a base hospital with soft tissue infections over 2 months. Data were collected using a questionnaire including demographic details, infection type, severity, and management methods.

##### **Results**

129 patients were included and 55% of them were females. The number of cellulitis, superficial abscesses, necrotizing fasciitis, erysipelas and hand infections were 72, 28, 10, 8 and 4 respectively. 40% had DM and 10 had lymphoedema. 75% of patients had localized infections, 21.7% had systemic sepsis and 6 (4.6%) patients had septic shock. 53% were managed with IV antibiotics (IV Ab) alone and widely used antibiotics were co-amoxiclav and clindamycin. 37% underwent surgical debridement, 5% underwent fasciotomy of limbs and 5% needed amputations. The average hospital stay was 4 days, and the average days of IV Ab was 4. 6 patients needed ICU care and one patient died due to sepsis and multiorgan failure.

##### **Discussion**

Most soft tissue infections are superficial and localized thus managed with IV antibiotics alone. A significant proportion of patients have co-morbidities including diabetes mellitus. Managing soft tissue infections with in-patient care, IV antibiotics and the need for surgical intervention carries a significant economic cost and highlights the need of measures to control and prevent soft tissue infection in the community.

## **PP 16 Head Injuries in Patients with Fits and Falls Due to Defaulted Epilepsy Treatment: A Retrospective Study**

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### **Introduction**

Epilepsy is a chronic neurological disease characterized by recurrent seizures. The study explores the relationship between defaulted epilepsy treatment and increased risk of seizures causing head injuries.

### **Methods**

A total of 138 head-injury patients (133 males and 5 females) who experienced fits and falls due to defaulted epilepsy treatment between December 1, 2022, and January 31, 2023 were included in this study. Clinical data were collected on admission, and patients underwent various diagnostic and treatment procedures. The primary outcome measures were the need for neurosurgical intervention and mortality.

### **Results**

Out of the 138 head-injured patients, 78 (56.5%) underwent non-contrast computed tomography (NCCT) of the brain. Neurosurgical intervention was required in 3 patients (2.2%). One patient (0.7%) succumbed due to non-salvageable brain damage. The remaining patients were managed with head injury observation (HIO) for 24 hours, referred to the neurology team, and initiated on antiepileptic treatment.

### **Conclusion**

Defaulted epilepsy treatment can lead to significant morbidity and mortality due to head injuries sustained from fits and falls. This study highlights the importance of appropriate and continuous epilepsy management to prevent adverse outcomes. Early identification, timely referral to neurology, and initiation of antiepileptic treatment are crucial in improving patient outcomes. Further research is needed to explore strategies to minimize treatment default and enhance adherence to epilepsy management protocols.

## **PP 17 A retrospective analysis of epidemiological trends of paediatric trauma in a tertiary care centre, Sri Lanka**

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### **Introduction**

Pediatric trauma is a major cause of morbidity & mortality in children globally. Many children, who survived a major trauma are left with disabilities that affect their development, education & social life. The aim of our study is to describe the current epidemiology, resource use, morbidity & mortality of pediatric patients admitted with trauma to a tertiary care center for children in Sri Lanka.

### **Methods**

This is a single center, retrospective observational study. It included pediatric patients under 14 years of age, who were admitted with trauma over a period of 1 year, from 1st of June 2022 to 31st of May 2023. Age group, mode of trauma, type of trauma, overall morbidity & mortality were assessed.

### **Results**

A total of 29,499 patients were included in the study and overall trauma was most common in 6-12 age group (37.8%). Minor head injuries (29.34%), minor soft tissue trauma (25%), Orthopedic injuries (21.8%) & animal bites (11.6%) were the most frequent type of injuries and slipped & fall (52%), accidental trauma (30%), and fall from height (9%) were the frequent mode of injuries. Overall mortality was 0.03% (N=8).

### **Discussion**

Epidemiological trends of pediatric trauma differ from those of adults & mortality following trauma is minimal.

### **Conclusion**

The majority of pediatric trauma are preventable and strategies to prevent such trauma should be implemented on the basis of epidemiological trends.

**PP 18 Prediction model for the need of postoperative organ support in an adult population undergoing elective major general surgery - utilizing The American College of Surgeons - National Quality Improvement Project (ACS-NSQUIP) surgical risk calculator**

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**Introduction**

An accepted model for predicting the need for postoperative organ support and intensive care in patients undergoing elective surgery is lacking worldwide. A reliable tool that could predict the level of postoperative care needed would facilitate the efficient utilization of ICU beds while ensuring patient safety.

The American College of Surgeons - National Quality Improvement Project (ACS-NSQUIP) surgical risk calculator is validated for the prediction of the risk of serious postoperative complications. We aimed to validate this calculated risk as a predictor of the need for post-operative organ support.

**Methods**

We obtained perioperative data from 126 patients who underwent elective major general surgery. We calculated the percentage risk of serious complications for each patient using the ACS-NSQUIP calculator and correlated it with the level of organ support needed postoperatively.

**Results**

The mean predicted percentage risk of serious complications, for the group that did not require any organ support was 10.5% and the group requiring 1 or more organ support was 18.1%. The standard error was 0.49 ( $p = 0.001$ ). A receiver-operating curve (ROC) gave an area under the curve of 0.71. We chose a cutoff for the percentage risk of serious complications of above 10.8% as a fair value for needing postoperative organ support as it had a sensitivity of 71.4% and a specificity of 66%.

**Discussion & Conclusions**

The percentage risk of serious complications calculated by the ACS-NSQUIP surgical risk calculator has a strong

positive correlation with the need for postoperative organ support, multi-center data is needed to determine definite cut-off values warranting ICU care.

**PP19 Sleeve Jejunal Bypass as a treatment for Morbid obesity—A Prospective short term review**

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**Introduction**

In patients with a body mass index of  $\geq 40$  or  $\geq 35$  kg/m<sup>2</sup> with co-morbidities, bariatric surgery is the most effective treatment option that promotes weight loss and improves comorbid conditions. Single anastomosis sleeve jejunal (SASJ) bypass, which is the focus of this study, is a safer and simpler modification of SASI using a shorter biliopancreatic limb length. Our study aimed to evaluate the efficacy of SASJ bypass as a treatment for morbid obesity and severe metabolic syndrome.

**Materials & Methods**

This Prospective study included 30 patients and was conducted from September 2022 to May 2023 in a tertiary care multi-speciality hospital. Operations were carried out on all cases before December 2022; thus the minimum follow up period was 6 months. SASJ bypass with biliary limb length of 200 to 250cm was performed. Patients were followed for a period of 6 months and evaluated by assessing BMI, Complications, nutritional status and improvement in comorbidities.

**Results**

In this study, out of 30 patients 18 were either diabetic or pre-diabetic and 16 were hypertensives, 14 were both diabetic and hypertensives. Post operative bleeding occurred in 1 patient and Prolonged Ileus occurred in 1 patient, no mortality was observed in the study. The % of EWL reached 55 % in 6 months. Normalisation of diabetes occurred in all diabetic patients and, hypertension remittance occurred in about 90 % patients in followup.

**Conclusion**

Laparoscopic SASJ bypass is an effective, safe, and simple procedure for treating morbid obesity and associated metabolic syndrome.

## **PP 20 Cajal-like cells; role in the pathogenesis of primary ureteropelvic junction obstruction**

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### **Introduction**

The association between primary ureteropelvic junction obstruction (UPJO) and Cajal-like cells (CLCs), which are pacemakers at the ureteropelvic junction (UPJ) is unclear. Changes in CLC density, distribution, and morphometry in UPJO and their association with UPJO was studied.

### **Methods**

UPJ samples (n=16) of children (<10years) and adults (20-50years) with primary UPJO and age, gender matched controls (n=16) were collected. CLCs were identified using CD117 immunostaining, and Fiji-based analysis was used to measure distribution and morphometry (Mann-Whitney U test).

### **Results**

Paediatric: Density of CLCs was not significantly different between cases (11/high-power-field) and controls (12/high-power-field). Clustered pattern of CLC distribution in cases compared to a homogeneous pattern in controls observed. An increased Ferets diameter (maximum distance between any two points along the cell membrane; cases (44.1±15.2), controls (38.5±13.1), p=0.009, solidity (concavity of the cell; cases (0.90±0.12), controls (0.85±0.12), p=0.008 and perimeter (total length of the cell membrane; cases (116±40), controls (101±36), p=0.017. Adult: Density of CLCs was not significantly different between cases (12±10/high-power-field) and controls (15±21/high-power-field). No statistically significant distributional or morphometric differences. Feret's diameter; cases (41.2±17.4), controls (41.0±14.9),

solidity; cases (0.88±0.13), controls (0.88±0.11), perimeter; cases (109±47), controls (104±43).

### **Discussion and conclusions**

Morphometric and distributional variations of CLCs are associated with primary UPJO in children, but not in adults. An altered CLC distribution may alter impulse generation at UPJ, causing intrinsic UPJO in children. Cytomorphometric alterations may reflect the cellular metabolic requirements, suggesting an underlying cellular dysfunction in UPJO. Absence in CLC density changes in adult UPJO suggests that it may not directly progression from childhood primary UPJO.

## **PP21 Neck vascular injuries, a single unit experience**

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### **Introduction**

Neck vascular injuries (NVI) are associated with high morbidity and mortality. There are no large studies done in Sri Lanka describing the NVI and the outcome.

### **Objectives**

The purpose of the study is to describe the neck vascular injuries presenting to a single unit and to describe the management and the outcome.

### **Methodology**

this is a retrospective study of patients who underwent neck exploration for NVI between September 2019 and May 2023 from the National Hospital of Sri Lanka, Colombo (NHSL). Data on demographics, mechanism of injuries, presentation, zone of injury, associated injuries and outcomes were collected.

### **Results**

11 were included. Mean age was 46.3 years (18 - 79), with a male predominance (90.9%). Causes were RTA in 5 (45.5%), stab injuries in 2 (18.2%), iatrogenic injury in 3 (27%) - (2 accidental cannulation, 1 during spinal fixation) and suicidal cut in 1 (9.1%). The presenting features were bleeding in 8

(72.7%) and expanding haematoma 3 (27.3%). Commonest site of injury was in zone II, 9 (63.6%). The intraoperative findings were, 7 (63.6%) side wall lacerations, 2 (18.2%) transections of the carotid artery and 1 each had external jugular and internal jugular vein injuries. Following carotid injuries, direct repair was done in 6 (66.6%) and interposition graft repair was done in 1 (11.2%) and patch repair in 1 (11.2%) and ligation in 1 (11.2%). Perioperative (30 days) mortality was 27.3 % (3/ 11). Causes of mortality were myocardial infarction, infection, and injury-related complications. 7 (63.6%) patients recovered with no neurological deficit. 1 (9.1%) developed right upper limb.

#### **PP22 Analysis of antibiotic usage in general surgical units of a Sri Lankan tertiary hospital**

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##### **Introduction**

Quantification of antibiotic usage is an important component of antimicrobial stewardship programs. We aimed to estimate institutional antibiotic usage and costs using methodology and metrics applicable to low-income settings without electronic health records.

##### **Methods**

The defined daily dose per 100 patient days (DDDs/100 PDs) of antibiotics used in a calendar year was calculated retrospectively from ward registers and inpatient drug records in general surgical wards (GSWs) of a tertiary hospital. The antibiotics were categorized using the Access-Watch-Reserve classification. The annual expenditure on antibiotics was estimated from price-lists of the state medication procurer.

##### **Results**

There were 43,080 admissions amounting to 74,110 inpatient days in 12 GSWs in 2019. Annual usage of intravenous co-amoxiclav, cefuroxime, and metronidazole was significantly higher than other antibiotics and certain

wards showed outlier use of the same. The intravenous formulations of co-amoxiclav (5-fold), metronidazole (3-fold) and ciprofloxacin (2-fold) were used more than the oral formulation. Proportionate antibiotic usage based on AWARe category did not vary significantly between wards. Two wards were outliers for annual expenditure/100 PDs. Intravenous clindamycin and meropenem combined accounted for 43.8% of expenditure on antibiotics.

##### **Conclusions**

This study demonstrated intra-institutional variations of annual antibiotic usage and related costs. Outlier use of antibiotics and units involved are identified in this method. The metric DDD/100 PDs and the methodology used here are suitable for intra and inter-institutional analyses of antibiotic usage, particularly in low-income settings like Sri Lanka. This will facilitate creating awareness of and devising strategies towards rational and sustainable antibiotic use at a national level.

#### **PP23 Characteristics and post-operative outcome of surgery for fistula-in-ano managed at a tertiary care hospital in Sri Lanka: A cohort study**

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##### **Introduction**

Management of fistula-in-ano is challenging and is associated with recurrences and sometimes, anal incontinence. We aimed to study the clinical characteristics and outcomes of fistula-in-ano based on our experience.

##### **Methods**

Patients with fistula-in-ano managed at a single tertiary care centre from 2016 to 2021 were included. Clinical characteristics were collected from a prospectively maintained database. Outcomes at one year (i.e. recurrence rate and quality of life) were collected using an interviewer administered questionnaire. Chi square test was used for statistical analysis.

## Results

A total of 284 patients [males=231, 81.3%; median age=39.5 (range: 7-73) years] were included. The majority had simple fistulae (n=191, 67.3%). Transphincteric (42.1%, n=110) fistulae were the commonest type followed by intersphincteric fistulae (39.5%, n=103) and the commonest procedure performed was fistulotomy (n=157, 55.3%). Follow-up details were traceable in 157 (55.3%) patients. At one year, the overall healing rate was 88.5% (n=136) [fistulectomy: 88.9% (n=24); fistulotomy: 93.8% (n=90); ligation of intersphincteric fistula tract (LIFT): 80% (n=4)]. There was no association between the type of surgical procedure and incontinence. The mean Vaizey score used to assess anal incontinence was 0.84 (range: 0-14). Incontinence was observed in 20.9% (n=32) and flatus incontinence was the commonest type (53.1%, n=17). Complex fistulae were associated with higher recurrence rates compared to simple fistulae (32.6% vs. 2.8%,  $p<0.001$ ).

## Discussion and Conclusion

In our experience, the healing rate for the surgical treatment of fistula-in-ano was 88.5% with acceptable complication rates. Notably, there was no association between the type of surgical procedure and incontinence.

**PP24 Reconstruction of Complex Abdominal wall defects with pedicled Anterolateral Thigh (ALT) flap**  
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**MGR University / MMC/Plastic Surgery, India**

## Introduction

Reconstruction of complex composite abdominal wall defects is a challenging and technically demanding procedure for a surgeon.

## Methods

This retrospective study was conducted from January 2018 to April 2023 with a total of 9 patients (5 - scar endometriosis, 4 - dermatofibrosarcoma) with post excisional complex composite anterolateral abdominal wall defects (average defect size - 15 x 22 cm). Pedicled adipo-fascial ALT (n = 5) and fascio-cutaneous ALT flaps (n = 4) based on the descending branch of LCFS were harvested and used for the reconstruction of the defects. To increase the reach of the flap,

it was tunnelled under the rectus femoris muscle and sartorius. The arc of the flap was increased by ligating the ascending and transverse branches of the LCFA. Omentum was spread over the viscera, followed by prolene reinforcement (as an inlay technique) at the fascial level followed by flap inset. Postoperatively, vascularity is monitored using a hand-held doppler. The average follow up for the patient is 18.5 months.

## Results

All the flaps survived well postoperatively without any major complications (1- donor site seroma in one patient). All patients resumed their daily activities an average of 6.5 months after surgery. A good exercise tolerance is achieved in 9.5 months in 6/9 patients. There was no herniation in any of the cases.

## Conclusion

The ALT flap and its modifications are versatile flaps for the reconstruction of anterolateral abdominal wall defects.

## PP25 Predictive accuracy of Birads Scoring in Diagnosing Breast Malignancy with Histopathology report as gold standard

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Thiruvananthapuram/General Surgery, India**

## Introduction

Carcinoma of the breast is a major health problem all over the world. Mammography is the primary imaging modality for breast cancer screening and diagnosis with significant improvements in its use as a diagnostic tool.

## Methods

This study consisted of 160 female patients over the age of 18 presenting with breast lumps. General history and examination findings noted followed by routine investigations. BIRADS Score was obtained by the expert opinion of the radiologist from either the Mammographic or Ultrasound evaluation. FNAC and Core needle biopsy were done, and reports were recorded. BIRADS score was compared with the histopathology report of the patient.

## Results

Out of the 160 patients who presented with a breast lump, 110 were found to be malignant on evaluation. The overall sensitivity and specificity of mammography in detecting breast cancer were found to be 95.45% and 86%, respectively. The positive predictive value and negative predictive value were found to be 93.75% and 89.58%, respectively. The sensitivity/specificity of detecting malignancy in a BIRADS 4 and 5 lesion were found to be 89.58%/86% and 92.06%/100% respectively.

## Conclusion

In our country, where the presentation of Carcinoma breast is often at an advanced stage, immediate diagnosis and treatment is essential. Histopathology reports are usually delayed by a few weeks further delaying the surgery. From this study patients with a BIRADS 5 lesion on mammogram can be considered as having a malignant lesion without additional time consuming investigations allowing for immediate treatment protocol to be initiated.

**PP 26 Outcome of Radical Nephrectomy with Inferior Vena Cava (IVC) Thrombectomy, A multicenter analysis.**  
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## Introduction

Renal Cell Carcinoma (RCC) with Inferior Vena Cava (IVC) involvement is relatively rare with an incidence of 3-15% of cases. 5 year survival of such patients is about 40 - 60%. But in Sri Lanka there is minimal data about IVC thrombectomy. This study will aid in filling the lacking local data.

## Methods

A retrospective study of radical nephrectomy and IVC thrombectomy were done from June 2023 to January 2021. Level of extension of RCC was categorized into level 0 (renal vein only), level 1 (< 2 cm in IVC), level 2 (> 2cm, but below liver), level 3 (retro hepatic IVC), level 4 (above diaphragm). SPSS analysis done.

## Results

16 included. Mean age was 59 years (44-79). 8 (50%) were males. 9 (56%) were left-sided tumors. Histology : 13 (86.6%) clear cell carcinoma. 6 (40%) level 1 tumors, 5 (33.3%) level 2 tumors, 3 (13.3%) level 3 tumors and 2 (13.3%) level 4 tumours. 6 (37%) patients were lost to follow up. At the mean follow-up of 324 days (5 -810), 5(50%) were alive. Out of deaths, 80% had level 3 or above. Mean survival of level 3 or above tumors is 11.3 months. Mean survival of level 1 and 2 tumors is 5.8 months. But this difference was statistically not significance

## Conclusion

Mean survival of level 3 or above tumors was 11.3 months. The 324 day survival in this analysis is 50 %. 37% patients were lost during follow up. In future a larger series and a computerized database is needed to improve follow up.

**PP 27 Comparison of perioperative outcome of rectal cancer surgery between laparoscopic and open approach**  
**J.A.D.C. Jayarathna, E.M.U.J.B. Ekanayake**  
**Department of Surgery, Faculty of medicine, University of Peradeniya, Sri Lanka**

## Introduction

Comparison of immediate perioperative outcome of open vs laparoscopic rectal cancer surgery in a surgical unit.

Data on intra operative blood-loss, duration of surgery, post operative complications, time to recovery of bowel functions and duration of hospital stay were collected from all patients who had anterior resection (AR) and abdomino-perineal resection (APR) from June 2016 to May 2022 prospectively. Patients were included into two groups, open (OS) and laparoscopic (LS), depending on the surgical approach. A comparison of data was done between two groups.

OS group included 34 patients while LS had 18. Median operative time of OS was 200 mins while in LS it was 235 mins (Mann-Whitney U = 1016, p = 0.35). LS had significantly low median blood-loss of 100ml compared to 300ml in OS (Mann-Whitney U = 241, p = 0.005). Time to recovery of bowel function in LS was 2 days while it was 3 days in OS (Mann-Whitney U = 190.5, p = 0.027). LS had a

significantly low hospital stay of 5.5 days compared to 8 days of OS (Mann-Whitney U = 175, p = 0.012). 17 of OS had wound infections while only one in LS (p = 0.002). Overall complications rate too was significantly low in LS which was 3 compared to 24 in OS (p=0.002).

LS has significantly better intra-operative blood-loss while there is no difference in operative time. LS has significantly better post-operative complications rates, time to recovery of bowel functions and hospital stay too.

LS has superior perioperative outcome compared to OS

#### **PP 28 Does the surgical approach have an impact on oncological clearance of rectal cancer?**

**J.A.D.C. Jayarathna, E.M.U.J.B. Ekanayake**

**Department of Surgery, Faculty of Medicine, University of Peradeniya, Sri Lanka**

##### **Introduction**

Assessment of impact of surgical approach to rectal cancer surgery on oncological clearance was the objective of this study.

##### **Methods**

Details of oncological clearance including the number of lymph nodes harvested, clearance of distal and circumferential margins were collected prospectively from 52 consecutive rectal cancer surgeries performed by a single surgeon from June 2016 to May 2022. Patients were allocated into two groups, namely open surgery (OS) and laparoscopic surgery (LS) depending on the surgical approach and oncological outcome details were compared.

##### **Results**

Out of 52 surgeries 18 were OS while remaining 34 were LS. In OS, 26 were anterior resections (AR) while eight were abdomino-perineal resections (APR). LS had 14 AR and four APR. Median lymph node recovery in each group was 12 and was not statistically different (Mann-Whitney U = 466, Z = -0.02, p = 0.98). None of the patients had positive circumferential margins and none had positive distal resection margin in OS group while only one from LS group had a positive distal resection margin which was again not

statistically significant (Fisher's exact test value = 0.34).

##### **Discussion**

There was no significant difference in number of lymph nodes harvested and rate of distal and circumferential resection margin positivity between two groups.

##### **Conclusion**

Oncological clearance of laparoscopic rectal cancer surgery is comparably similar to open approach.

#### **PP 29 A prospective study on drain fluid amylase as an indicator of clinical outcome in patients undergoing Whipple surgery.**

**Dr.S.Gishanthan, Suchintha Thilakarathne, Bulathsinnhala BS K, Siriwardana RC, Urugoda B Colombo North Teaching Hospital, Sri Lanka**

##### **Introduction**

Post-Whipple pancreatic fistula is defined as having a high drain fluid amylase (DFA) (>3 times of normal value). In our observation DFA levels did not influence the clinical outcome. OBJECTIVES To determine the drain fluid amylase levels on outcome of patients

##### **Methods**

48 patients who underwent the Whipple procedure from May 2015 to September 2019 were included. Serum amylase and DFA levels were assessed on days 1,3 and 5. Amylase levels were compared with the patient's outcome and the nature of the pancreas.

##### **Results**

20 patients had DFA over three times on day 1. Their median hospital stay (HS) and ICU stay did not differ from others (HS 8 vs. 9 days, p=0.545; ICU stay 3 vs. 3 p=0.95). On day three 15 patients had DFA rise and their hospital stay (HS) and ICU were comparable. (HS 8 vs. 9 days (p=0.083), ICU stay 3 vs 3 p=0.26). On day five 5 patients had DFA over three times and their median hospital stay (HS) and ICU stay were similar Nature of the pancreas also did not correlate significantly with DFA more than 3 times. Although patients with DFA more than 3 times of normal value on day 1,3, and 5 had smaller duct diameter (D1 2.78mm vs 4.25mm p=0.86; D3 2.08mm vs

4.42mm p=0.165; D5 4.10mm vs 1.86mm p=0.44) non was statistically significant. Conclusion DFA > 3 times on Day1,3 and,5 did not significantly alter the outcome of patients.

### **PP 30 Review of Surgical Management of Retrosternal Goiter**

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

#### **Introduction**

The incidence of retro-sternal goiter (RSG) reported in the literature has a wide range, 5-40%. 40% have compressive symptoms and incidence of malignancy reported varies from 8-22%. Therefore majority will need thyroidectomy. As blood supply of retrosternal part is from neck, it is possible to remove the intra-thoracic extension via neck. However large extensions will need direct access in to the chest, which is 5-15%. Traditional median sternotomy(MS) associated with substantial morbidity. An alternative is to perform by thoracoscopy.

#### **Methods**

A retrospective analysis of RSG in a single unit from 01/01/2018-01/01/2020 was done. Initial assessment was by ultra-sound scan and further evaluation by CECT neck and chest. Route of access to the intra-thoracic extension, time taken, blood loss, postoperative analgesic requirement and hospital stay were recorded.

#### **Results**

From 391 goiters, 60(15.3) were retrosternal. 54(90%) were removed via neck. 6(10%) needed direct access to chest, 2 were done by MS and other 4 by thoracoscopy. Mean time for the former was 280min with an average blood loss of 750ml. Thoracoscopic group took a mean time of 210min with blood loss being less than 100ml. MS group were ventilated overnight while thoracoscopy group was extubated soon after surgery, orally fed, and mobilized on the same day. Analgesic requirements, hospital stay were less for thoracoscopy patients. 7 patients out of 60 (11.6%) had malignancy.

### **Conclusions**

Incidence of RSG, need for direct access to the chest and incidence of malignancy were within ranges reported in the literature. Thoracoscopy access had less blood loss and postoperative morbidity than median sternotomy.

### **PP 31 An audit on the management of acute appendicitis at a district general hospital in Sri Lanka.**

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**District General Hospital, Gampaha, Sri Lanka**

#### **Introduction**

Acute Appendicitis (AA) is a common surgical emergency in the local setting and data on its outcome is lacking. This audit assesses the surgical practice and outcome in AA in suburban Sri Lanka.

#### **Methodology**

All patients who underwent emergency appendicectomy over 6 months (November 2022 to April 2023) at a District General Hospital (DGH) (3 units) were included. Patient demographics, clinical features, imaging details, operative findings, histopathology, and post-op outcomes were evaluated.

#### **Result**

128 patients (median age - 21 years; range - 6-73; females - 53.9%) underwent emergency appendicectomy (open - 122; laparoscopic - 6). 69.5% (n=89) presented within the first 24 hours. 63.5% (n=81) underwent surgery within 2 hours of diagnosis. Ultrasonography was requested in 93.7% and confirmation was received in 29.7% (n=38) while 35.9% had suggestive features. The Alvarado score of  $\geq 7$  was recorded for 71.1% (n=91) patients. Complicated appendices were present in 18% (n=23) and 10.9% (n=14) had a perforated appendix. The negative appendicectomy rate recorded as 4.7% (n=6) increased to 10.2% (n=13) on histopathological assessment. The complication rate was 16.4% (n=21; Clavien-Dindo - grade I - 18, grade II - 2, grade IV - 1). Post-operative antibiotics use in 61% (n=78) was non-compliant with guidelines. The median hospital stay was 2 days (Range- 1-18 days).

## Conclusions

The majority of AA seek surgical care within 24 hours of symptoms. There is a high rate of ultrasonography with limited value, an acceptable rate of postoperative complications, a very low rate of the laparoscopic approach, and a high rate of non-compliance to antibiotic use at the DGH

## PP 32 Gastroesophageal Reflux Disease in Sri Lanka: an island-wide epidemiological survey assessing the prevalence and associated factors

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### Introduction

Gastroesophageal reflux disease (GERD) is commonly encountered in clinical practice in Sri Lanka. However, its prevalence in Sri Lanka is unknown. Our objective was to study the island-wide prevalence of GERD in Sri Lanka and its associated factors.

### Methods

A total of 1200 individuals aged 18-70 years (male: female 1: 1.16, mean age 42.7 years [SD 14.4 years]). were recruited from all 25 districts of the country, using stratified random sampling. An interviewer-administered, country-validated questionnaire was used to assess the GERD prevalence and associated factors. Weight, height, waist, and hip circumference were measured. Heartburn and/or reflux at least once a week, an internationally used criterion for probable GERD was used to diagnose GERD.

### Results

In this study, GERD prevalence was 25.3% (male 42.1% and female 57.9%). Factors independently associated with GERD were inadequate sleep, snacking at midnight, sleeping within two hours of consuming a meal, skipping breakfast, sleeping within two hours of consuming a meal, increased mental stress, and certain medications used such as statins, and antihypertensive medications ( $p < 0.001$ , univariate and logistic regression analysis). 38.4% of the study population have been using medication for heartburn and regurgitation in the past 3 months and 19.8% were on proton pump inhibitors.

## Discussion / Conclusion

The prevalence of GERD in Sri Lanka (25.3%) is higher than its estimated global prevalence of 13.8%. Several meal-related lifestyle habits, mental stress, and use of some medications are significantly associated with GERD, indicating the importance of lifestyle modification and stress reduction in its management.

## PP 33 Surgical management of grade 3 gynecomastia with excess redundant skin: Experience and Outcomes

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### Introduction

Surgical management of grade 3 gynecomastia with excess redundant skin is challenging. The choice of the surgical technique is mainly decided upon the size of the gynecomastia, the skin redundancy and correction of nipple position. We report our experience in the use of the circular incision bi-pedicled vertical flap based mastectomy for grade 111 gynecomastia according to Simon classification.

### Method

This is a retrospective study conducted between January 2022 and April 2023 at two tertiary breast care clinics in Sri Lanka. Results: A total of 7 patients with bilateral grade 111 gynecomastia were included in this study with a median age of 24 years (range: 18 – 42 years). The mean BMI was 23.2 kg/m<sup>2</sup>. All patients exhibited near symmetrical breasts and large areolar diameters. All patients complained of physical and psychological dissatisfaction with their condition and sought an aesthetic correction. Two patients were diagnosed with Klinefelter syndrome and others were apparently healthy. The main complication was seroma formation (7/7). No patients developed haematoma. Nipple hypoesthesia was noted in two patients which improved on follow up. The mean follow-up duration was 4 – 9 months. The survey of patient satisfaction showed 9 for contour, 8.6 for wound scars, 9.2 for overall satisfaction and 9.6 for improvement in self-confidence.

### Conclusion

The above surgical technique achieved satisfactory aesthetic results while avoiding unsightly scars or serious complications and can be recommended to consider in the

surgical decision making for grade 111 gynecomastia.

**PP 34 Factors associated with GERD by comparison of diagnosed GERD patients and healthy controls.**

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**Introduction**

Associated factors related to objectively diagnosed GERD (gastroesophageal reflux disease), compared to healthy controls have not been studied in Sri Lanka.

**Methods**

Sixty-nine patients from, the National Hospital of Sri Lanka who were diagnosed with GERD by endoscopy or pH-metry were compared with 69 age and sex-matched healthy controls recruited randomly from the Western province. Controls were identified as those who did not have symptoms of GERD such as heartburn, regurgitation, chest pain, bloating, dysphagia, cough, or belching within the last month. An interviewer-administered questionnaire consisting of validated tools was used to assess habits, perceived stress, diet, and physical activity. Anthropometric values were measured.

**Results**

Of the patients, 52.2% were males. The mean age was 42.2 years [SD 12.9]. When comparing GERD to controls, lower family income (<50 000 Rs in 75.4% vs. 52.2%), asthma (11.6% vs. 1.4%), consuming a midnight snack (18.8% vs. 2.9%), inadequate sleep (56.5% vs 27.5%), moderate to high stress (59.4% vs 30.4%), and inadequate recommended physical activity (50.7% vs 18.8%) were found to be significantly associated with GERD. ( $p < 0.05$ ). GERD patients were thinner than controls, (underweight or normal BMI 63.8% vs 43.5%), and while daily calorie intake (kcal) [mean (SD), 2154.7 (506.0) vs 2423.3 (491.9)] was less in them.

**Conclusions**

Socio-economic status, asthma, dietary habits, stress, and reduced physical activity are significantly associated with GORD in Sri Lankan adult population. Diet changes due to symptoms could cause reduced food intake and reduced obesity in patients.

**PP 35 Outcome of pediatric free flaps with updated protocol for monitoring with Hand-held doppler device: A Case series.**

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**Introduction**

Post-operative monitoring of the perfusion of the free flap is essential to detect anastomotic failures early to salvage the flap with anastomosis revision. Traditional unit protocol with monitoring of color, warmth, and bleeding requires experience of observer in detecting arterial or venous failure.

**Methods**

A prospective study was conducted at plastic surgical department at a pediatric tertiary care hospital in Sri Lanka. The data on demographics, injury patterns, operative details, and 30-day viability were analyzed. Monitoring doctors were trained to use handheld Doppler in flap monitoring. Time to discontinue flap monitoring with bleeding was recorded.

**Results**

Out of 308 plastic surgical referrals from January to June 2023, 5 children required free flaps for soft tissue coverage. Average age was 8 years with male predominance (60%,  $n=3$ ) and three of them had soft tissue defects related to ankle caused by trauma. All children underwent free Antero-lateral thigh flap in reconstruction. In addition to post-op monitoring with color, warmth, and bleeding, handheld Doppler was used to detect both arterial and venous Doppler flows. Detection of arterial flow was immediate, but appearance of venous signal was delayed for 13.4hrs (range 12-15). Monitoring with bleeding was discontinued after 21.4hrs (range 20-23). The previous protocol, bleeding monitoring was continued for at least 48hrs. All the flaps had 100% 30-day viability without any need for anastomotic revision.

**Conclusion**

Combining Doppler monitoring in post-operative free flap assessment reduces the duration of monitoring with bleeding and a more objective assessment can be obtained with proper training of the assessor.

**PP 36 Intra operative and post operative pain , post operative complications and hospital stay in Lichtenstein Inguinal Hernia Repair under local anasthaesia versus spinal anasthaesia : A non – randomized interventional study**

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**Introduction**

Lichtenstein Inguinal Hernia Repair is one of the common routine surgery performed in Sri Lanka. We did this study to compare the efficacy of local anasthaesia(LA) to spinal anasthaesia(SA) regarding pain, complication and hospital stay.

**Methods**

This is a non-randomized interventional study comparing effectiveness of LA versus SA in Lichtenstein Inguinal Hernia Repair with regards to pain, hospital stay and complications .Each group consists of 40 participants who underwent the surgery with planned post operative analgaesics. The pain was assessed by numerical rating scale during surgery and post operative- one hour, day-1 and two weeks for both arms. Analysis was done concerning relevant univariate and bivariate considerations. Reference p-value (<0.05) was taken as significant.

**Results**

There was no significant difference in median pain during ( $p=0.622$ ) and after one day of the surgery ( $p=0.215$ ) between two groups. There was a significant difference in median pain after one hour ( $p=0.001$ ) and after two weeks ( $0.004$ ) between the two groups. The mean duration of the surgery didn't differ significantly in two arms ( $p=0.688$ ). There was no difference in complications( $p=0.456$ ) and hospital stay with concerning the type of anesthesia ( $p=0.505$ ).

**Discussion and conclusions**

This non- randomized interventional study shows that there is no significant difference in intra- operative and post operative day -one pain in two arms but pain in immediate post operative period and two weeks after the surgery is significant in local anasthaesia group . There is no significant difference in operative time

**PP 37 An Institutional Analysis of the correlation between Ki 67 index and other prognostic markers in Invasive Breast Cancer in Northern Province, Sri Lanka**

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**Introduction**

Breast cancer is the commonest cancer among females in Sri Lanka. The markers that define the treatment recommendations are ER, PR, HER2/neu and Ki-67 index.

**Methods**

This is a retrospective study performed on the pathological specimens of invasive ductal carcinoma from January 2020 to July 2022. A Ki-67 index above 20 was considered high and below 20 was low. The chi-square test analysed the correlation between Ki-67 and other prognostic markers as categorical variables.

**Results**

143 specimens were analyzed, of which 101 were core biopsies and 42 were mastectomy/ WLE specimens. ER, PR and HER2/neu positivity were noted in 100 (69.9%), 85 (59.4%) and 41(28.7%) cases, respectively. Nottingham tumour grade 1,2 and 3 was noted in 16 (11.2%), 74 (51.7%) and 38 (26.6%) cases, respectively. The mean Ki-67 index was 40.21 %. High Ki-67 index was noted in 107(74.8%) and low (<20) in 36(25.2%) cases. A significant correlation was noted between ER, PR positivity and Ki-67 index ( $p=0.02$ ,  $0.01$ ). The correlation between HER2/neu positivity and Ki-67 was insignificant ( $p=0.06$ ). A significant correlation was found between the Ki-67 index and tumour grade ( $p=0.01$ ).

**Conclusion**

This study showed that high Ki-67 expression is associated with high tumour grade, ER/PR positivity and HER2/neu negativity. Varying results with the published literature reveal geographical variations and warrant large-scale analysis with a bigger sample size.

### **PP 38 Gastro-entero-pancreatic neuroendocrine tumours in adults - a single HPB surgical center experience**

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#### **Introduction**

Gastro-entero-pancreatic neuroendocrine tumors (GEP-NETs) are rare heterogeneous neoplasms. They are variable in their location, hormonal secretion, malignant potential and genetic aetiology.

#### **Methods**

This is a retrospective descriptive analysis of 29 cases of GEP-NETs from 2011 to 2023 obtained from a prospective database in a single HPB surgical unit.

#### **Results**

Mean age was 44 years (range 20-75) with a male: female ratio of 4:3. Approximately 90% (n=25) were in the pancreas and the rest in the gallbladder and small bowel. The commonest locations for pancreatic NETs (PNETs) were the head (n=9) and tail (n=8). Functional PNETs included insulinomas (n=10), VIPoma (n=1) and gastrinoma (n=1). 7% of NETs were detected incidentally. Hypoglycaemia (75%) was the commonest symptom of functional PNETs and dyspepsia was the predominant symptom of non-functional PNETs. 4 patients had MEN-1 syndrome. The WHO tumour grade was 2 (n=7) and 1 (n=6). Hepatic metastases were present in 28% (n=8). The type of pancreatic resection or enucleation performed depended on the size and location of the tumour. Hepatic metastasectomies combined with ablation were done in 3 patients. Inoperable tumour was seen in 17% (n=5). 1 patient with MEN-1 died of a respiratory illness while awaiting surgery. Post-operative morbidity included grade B (n=1) and C (n=1) pancreatic fistulae, aspiration pneumonia (n=1) and diabetes (n=1). Two patients developed hepatic recurrence. There was no post-operative mortality.

#### **Discussion and conclusions**

The pancreas was the primary site of NETs. Insulinomas were the commonest functional PNETs. A subset of functional PNETs had MEN-1. Site and location are major determinants of surgical strategy.

### **PP 39 Management of choledochal cysts: 10-year experience from a single HPB centre in Sri Lanka.**

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#### **Introduction**

Choledochal cysts occur due to congenital ectatic dilation of the biliary tree. Though rare worldwide, the prevalence of this condition is relatively common in Asia. It can present at any age with a variety of symptoms.

#### **Methods**

A retrospective analysis of a prospective database for choledochal cysts was done. Fifteen patients who underwent surgery for choledochal cysts from 2012 to 2022 were included.

#### **Results**

The mean age was 40.7 (15–60) years, with a male: female ratio of 1:6.5. Todani type 1 was the commonest (n=11, 73.3%), followed by type 4 (n=3, 20.0%), and with one Type 5 (Caroli's Disease). Procedures done included choledochal cyst excision (n=12, 80.0%), right hepatectomy (n=1), extended hepatectomy (n=1) and revision of choledochoduodenostomy (n=1) right with Roux-en-Y reconstruction. Two patients (13.3%) had co-existing malignancies. Postoperative morbidity included bile leaks (n=2), cholangitis (n=2), superficial wound infections (n=2) and upper gastrointestinal bleeding (n=1). The median hospital stay is 7 days (6-180). One patient required re-operation for iatrogenic narrowing of the Roux loop complicated by bile leak and major intra-abdominal sepsis and a prolonged ICU and hospital stay of 180 days.

#### **Discussion and Conclusion**

The demography of choledochal cysts seen in this cohort was similar to that reported in studies, though with a higher female preponderance. Excision with Roux-en-Y reconstruction is the index procedure, though more extensive procedures may be warranted in selected circumstances, like malignancy. Overall outcomes and morbidity were comparable to reported data, except for serious complications in one patient.

**PP 40 Clinical and Histopathological Correlates of Paediatric Inflammatory Myoblastic Tumors - A Single Centered Tertiary Care Experience**

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**Introduction**

Inflammatory myofibroblastic tumor(IMT) is a rare mesenchymal neoplasm that arises in the soft tissues of nearly every organ. Its etiology remains unclear and its clinical course ranges from completely benign to malignant with fatal outcome. IMTs are characterized by proliferating spindle cells with variable inflammatory component.

**Method**

Retrospectively reviewed the patient data, including relevant clinical, laboratory and treatment information of children treated with diagnosis of IMT in LRH for past 3 years.

**Results**

Of the 4 children, 75%(n=3) were male. Mean age was 127.5 month with age ranging from 108 to 145 months.

Among the cases reviewed, the female child presented with dysphagia and was found to have an IMT in the esophagus, leading to esophagectomy. Of the remaining three boys, the 9-year-old boy presented as a surgical emergency with intussusception and was diagnosed with a mid-ileal polyp with IMT. 12-year-old boy presented with nasal blockage and proptosis, which were attributed to an IMT in the right nasal cavity. Lastly, the 11-year-old boy presented with constitutional symptoms, and a lymph node biopsy revealed IMT.

**Discussion and Conclusion**

These cases underscore the variability of IMT in terms of clinical presentation, histopathology, and biological behavior. Pathologists need to have a high degree of suspicion on confirming the diagnosis as inflammatory cells are not always apparent. Clinicians need to be aware of this rare pediatric tumor. Complete surgical resection, along with vigilant follow-up, is imperative for appropriate treatment to prevent recurrences and to avoid unnecessary and potentially harmful therapies.

**PP 41 Demographics and Clinical Outcomes of Gallbladder Cancer in a Tertiary Care Centre in Sri Lanka**

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**Introduction**

Gallbladder cancer (GBC) is rare but incidence varies with geography and ethnicity, with a poor prognosis due to late presentation. Studies with representative data of demographic factors and clinical outcomes of GBC in Sri Lanka are lacking. This study aims to describe the demographics and clinical outcomes of GBC in a tertiary care centre in Sri Lanka over a period of 3 years.

**Method**

A retrospective study was conducted at the tertiary care centre including newly diagnosed patients with GBC based on either radiological (n=41) or histological (n=16) criteria. A descriptive analysis was performed to describe demographics and clinical outcomes which were collected through a custom-made database.

**Results**

Of the 57 patients with GBC, there was a female preponderance (n=29, 50.9%). Mean age at presentation was 64 (range: 31-88) years. Abdominal pain (61.4%), loss of appetite (52.6%), and jaundice (42.1%) were the commonest presenting complaints, with a mean duration of 3 months (range: 0.5-18). Hypertension (n=21, 36.8%) and Diabetes (n=15, 26.3%) were the commonest co-morbidities. The majority never consumed alcohol (n=31, 54.4%) nor smoked (n=50, 87.7%). Twenty-four (42.1%) patients had resectable lesions, of which only 20 (83.3%) were operable with curative intent. Ultimately, 28 (49.1%) patients underwent surgery, of which 8 (28.6%) were of palliative intent.

**Discussion and Conclusions**

There was a female preponderance in this Sri Lankan cohort. Only a minority (42.1%) had resectable lesions, likely due to non-specific initial presentations.

**PP 42 Factors influencing waiting time in live donor kidney transplantation: a single unit experience**

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University Vascular and Transplantation Surgical Unit, National Hospital Sri Lanka

**Introduction**

Live donor kidney transplantation (LDKT) improves survival and quality of life of patients with end stage renal failure (ESRF). Growing number of ESRF patients and shortage of donors poses a significant challenge to the community.

**Methodology**

LDKT performed in University Vascular Unit, National Hospital of Sri Lanka from April 2021 to April 2023 were included in the study. Patient demography and donor details were analysed

**Results**

20 were included. 75% (n=15) were altruistic donors, 20%(n=4) were first degree relatives and 5% (n=1) were 3rd degree relatives. Mean waiting time from initiation of transplant plan to surgery was 19.5 months (2-48). Major causes of delay were; delay (Mean= 27 months) in finding a compatible donor in 50%(n=10), due to treatment of other medical illnesses in 20%(n=4) (Mean 19.5 months)( i.e.as ischemic heart disease and pulmonary tuberculosis ) and 20%(n=4) had delay in pre KT work up (Mean= 12 months). 10%(n=4) had surgery postponed due to COVID infection.

**Discussion and conclusion**

Mean waiting time for KT is 19.5 months. Delay in finding a donor is a major factor for the prolonged waiting time for KT (Mean 27 months). Increase in regular availability of deceased donor kidney is likely to resolve these issues.

**PP 44 Aortic arch dimensions in Sri Lankan patients; a computerized tomography-based study**

H F D G D Fonseka, J Arudchelvam, G P Jayantha, M Wijeyaratne, N Gowcikan, N Harivallavan, R Cassim, T D Goonaratne, U Wanigasiri

University Vascular and Transplantation Surgical Unit, National Hospital Sri Lanka. Radiological unit, National Hospital Sri Lanka

**Introduction**

The arch of the aorta begins from the end of ascending aorta at the level of the 4th thoracic vertebra(T4) and ends at the same vertebral level as a descending thoracic aorta. The dimensions of the arch vary according to age, gender, and race.

**Methodology**

50 computed tomography (CT) images of the patients who underwent contrast-enhanced thoracic CT for non-related illnesses were analyzed retrospectively.

**Results**

There were 30 males (60%) and 20 females (40%). The mean age was 58.3 years (20-81). 21 (42%) patients had variations of the arch. After excluding the variated cases, the mean diameter at the beginning of the aortic arch(D1) at the T4 level was 27.7mm (21-34). The mean diameter at the end of the aortic arch(D2) at the same level was 22.1mm (15.6-33). D1 and D2 from a Western study were 29.4mm and 24.7mm respectively.

The mean distance (MD) from coronary openings (CO) to the end of the aortic arch(D3) was 173.6mm (113-222). MD from CO to brachiocephalic trunk(D4) was 84.4mm (64-111). MD from CO to the left common carotid(D5) was 98mm (74.8-129). MD from CO to left subclavian(D6) was 112.8mm(86.5-151). The mean diameters of the origins of the brachiocephalic trunk, left common carotid, and left subclavian were 10.8 mm, 7.1mm, and 9.3mm respectively.

**Conclusion**

Sri Lankan populations have smaller aortic arch diameters compared to Western populations. This should be taken into consideration when the aortic arch aneurysm is defined and planning interventions. Aortic arch distances of Sri Lankan populations are important when planning endovascular repair of aortic arch pathologies.

#### **PP 45 Anatomical variations of the Aortic Arch: A computerized tomography based study**

**H F D G D Fonseka, J Arudchelvam, G P Jayantha, M Wijeyaratne, N Gowcikan, N Harivallavan, R Cassim, T D Goonaratne, U Wanigasiri**

**University Vascular and Transplantation Surgical Unit, National Hospital Sri Lanka. Radiological unit, National Hospital Sri Lanka**

##### **Introduction**

The aortic arch develops from multiple components during embryonic development i.e. aortic horn, pharyngeal arch artery, and dorsal aorta. The pattern of fusion of these components results in anatomical variations in adults. The variations in the anatomy of the aortic arch may lead to problems during open vascular and endovascular interventions.

##### **Methodology**

The patients who underwent CECT chest scans for various medical problems in the radiology department of National Hospital Sri Lanka(NHSL) were analyzed retrospectively in relation to the variations of the branches of the aortic arch.

##### **Results**

A total of 50 (Male: Female = 30:20) were analyzed. 20 (40%) had variations in branching patterns. The commonest variation was bovine arch(BA) (common origin of both common carotid arteries from the brachiocephalic trunk) 28% (n=14). But the association between BA and gender is not statistically significant ( $p=0.69$ ). 4 (8%) had left vertebral artery arising from the arch. One (2%) had right-sided aortic arch and one (2%) had aberrant right subclavian artery. One (2%) had both BA and left vertebral artery arising from the arch. The difference between variations and gender was also not statistically significant( $p=0.81$ )

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

Variations of the aortic arch are common (40%). Knowledge about those variations is essential, especially during emergency interventions. Therefore prior to any vascular surgical interventions proper imaging of the aortic arch is recommended to delineate the anatomy to prevent unwanted complications.

#### **PP 46 Retrospective cohort descriptive study of cardiac surgeries- a single unit experience**

**Nishanthan Shanthanayagam, Oshani Jayathissa, Rajitha De silva**

**Cardiothoracic Surgical Unit ,SJGH, Sri Lanka**

##### **Introduction**

This study intends to analyze the cardiac surgeries done over a period of 6 months in terms of outcome and the impact of Diabetes mellitus on post-operative hospital stay.

##### **Methods**

This is a Retrospective cohort descriptive study of all the cardiac surgeries performed in a single unit at SJGH, Colombo from 2022 December to 2023 May. There were 204 patients and the data was available for only 185 patients. Hard copies of the BHTs were used to make a data base and the analysis was done using SPSS version 23.0

##### **Results**

The mean age of patient population was 58.37years ( $\pm 2 \times 9.393$ ) and 46 (24.9%) patients were females. There were 12(6.45%) ONCABs, 141(75.8%) OPCABs, 16(8.6%) single vessel MIDCABS, 4(2.15%) Multi Vessel MIDCABS 4(2.15%) open mitral valve repairs, 1(0.53%) mini mitral valve repair, 2(1.07%) open mitral valve replacements ,2(1.07%) aortic valve replacement, 1(0.53%) AVR and CABG, 1(0.53%) MVR+TV ring annuloplasty + ASD closure, 1(0.53%) ASD closure and 1 (0.53%) CABG +MV Repair. There were 6 in-hospital mortality including 1 sudden cardiac death. Reopening and post-operative cardiac arrest occurred in 4(2.2%) and 3(1.6%) patients. The average ICU stay was 3.45 days ( $\pm 2 \times 1.286$ ) .The mean post-operative hospital stay was 7.15 days ( $\pm 3.695$ ). 102(54.8%) patients had Diabetes mellitus .The mean post op stay of DM and non DM patients were 7.65days ( $\pm 2 \times 4.692$ ) and 6.66 days ( $\pm 2 \times 1.792$ ) respectively. The t-test revealed no significant difference of means ( $p=0.065$ )

##### **Conclusion and discussion**

There is no significant association between diabetes mellitus and prolonged post op hospital stay in this study.

## PP 47 Retrospective descriptive study of minimally invasive CABGs (MIDCAB)

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### Introduction

The minimally invasive coronary artery bypass surgeries are performed in a very few centers in Sri Lanka. This study analyses the outcome of minimally invasive direct coronary artery bypass surgeries and the correlation between Euroscore II and post op hospital stay

### Methods

This retrospective descriptive study included all the MIDCABs done from February 2014 to March 2023 with a total of 448 surgeries in a cardiac surgical unit at SJGH, Colombo. There are only 282 data available to analyze. All the data were obtained from both electronic and hard copies of BHTs available. The data was analyzed using SPSS version 23.0

### Results

The mean age of patient population was 56.11 years ( $\pm 2 \times 9.67$ ) and 76 (27%) patients were females. NYHA class I, II, III & IV were 126(44.7%), 124(44%), 29(10.3%) and 3(1.1%) respectively. Pre-operative EF was  $\geq 55\%$  in 167(73.2%), 40-54% in 58(25.4%) and 25-39% in 3(1.3%) patients. There were 212(75.2%) single-vessel MIDCABs, 55(19.5%) Multi-vessel MIDCABs and 15(5.3%) Hybrid surgeries. The grafted diseased vessels of LAD, OM1, OM2, OM3, R1, D1 were 278(81.28%), 35(10.23%), 5(1.46%), 2(0.58%), 7(2.04%), 15(4.38%) respectively. The grafts of LIMA, GSV and radial were 282(82.45%), 56(16.36%) 04(0.87%) respectively. There was no in-hospital mortality. Reopening and post-operative cardiac arrest occurred in 6(2.2%) and 4(1.5%) patients. The average ICU stay was 3.35 days ( $\pm 2 \times 1.864$ ). The mean post-operative hospital stay was 6.52 days ( $\pm 3.232$ ). There was no positive correlation between Euroscore II and Post-operative hospital stay ( $r=0.931, P>0.05$ )

### Conclusion and discussion

Minimally invasive direct coronary artery bypass is safe and leads to early recovery after surgery. There is no correlation between EUROSCORE

## PP 48 Does HER2/Neu positive breast cancer patients have higher tumour grade and Lymph node positivity on presentation? Results from a tertiary care centre.

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### Introduction

Her2/neu overexpressed breast cancers are associated with a poor prognosis. This study assessed the correlation between nodal metastasis and grade of tumour with Her2/neu over expression in Sri Lankan women.

### Method

A retrospective, cross sectional study was done from a tertiary care unit breast cancer database from Jan 2020 to April 2023. Her2/neu overexpression was identified by Immunohistochemistry +/- FISH; grade was demonstrated according to Nottingham histological grading and lymph node status demonstrated by histology of sentinel lymph node sampling or axillary clearance. Statistical significance was assigned to a p value  $< 0.05\%$ .

### Results

Out of 400 patients, 280(85.1%) were Her2/Neu negative (mean age 56.10, range 23-86) and 49(14.8%) were Her2/Neu positive (mean age-56.84, range 20-79). 21(42%) Her2/neu over expressed patients and 135(53.78%) Her2 negative patients had lymph node metastasis ( $p=1.961$ ). Patients with Her2/neu overexpressed tumours had grade one 2(4.0%), grade two 16(32.65%) and grade three 31(63.26%) tumours. Her2/Neu negative patients had grade one 54(19.28%), grade 2 124(44.28%), grade three 102(36.42%) ( $p=0.000739$ ).

	Total	Grade 1	Grade 2	Grade 3	Lymph node positive	Lymph node negative
Her2/Neu positive	280	2	16	31	21	28
Her2/Neu negative	49	54	124	102	135	145

### Conclusion

This study suggests that there is a statistical significance between Her2/neu status and grade of tumour, but not with axillary lymph node metastasis. However, study of a larger cohort would be more beneficial.

Total Grade 1 Grade 2 Grade 3 Lymph node positive Lymph node negative  
Her2/Neu positive 280 2 16 31 21 28  
Her2/Neu negative 49 54 124 102 135 145

negative4954124102135145

#### **PP 49 Outcome from colorectal cancer in a cohort of octogenarians**

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**1 Faculty of Medicine, University of Kelaniya. 2 Colombo North Teaching Hospital, Ragama, Sri Lanka**

##### **Introduction**

Colorectal cancer (CRC) is a disease with favorable outcome despite of advanced stage. The global population is growing older and surgery for elderly patients is becoming common. The average life expectancy of a Sri Lankan is 77.5 years and has been improving over the years. Offering optimum management for CRC regardless of the chronological age improves outcome.

##### **Method**

We analysed the outcomes of a cohort of octogenarians with CRC who were managed at the University Surgical Unit from 1995 to 2023. The patient demographics, tumour characteristics and survival pattern were analysed. Survival and Hazard functions were analysed using Kaplan-Meier survival curve.

##### **Results**

A total of 45 patients (Median age – 83 years; range – 80 to 89, female – 20) above the age of 80 years have presented with CRC during the study period. Six patients were lost to follow-up while 3 patients expired without having surgery. Of the total 42% were in advanced stage (T4 and T3) and 15% (n=7) presented with intestinal obstruction. Neoadjuvant treatment was administered to only 33% (n=2/6) with an indication. For the 39 patients who had surgery, the median survival was 36 months (range 0-132 months) and the 5-year survival is 37% (95% CI - 0.21 – 0.63).

##### **Conclusion**

The octogenarian population present at a late stage and the median survival is well below the average expected. In future, more attention will be required in this group of patients with the improvement in life expectancy in the local population.

#### **PP 50 Usefulness of simultaneous use of anatomical landmarks in identification of facial nerve in parotid gland dissection: A cadaveric study.**

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##### **Introduction**

Identification of Facial nerve trunk (FNT) is paramount in parotidectomy to avoid an iatrogenic injury to the nerve leading to facial muscle paralysis. There are many anatomical landmarks described in literature such as tragal pointer (TP) posterior belly of digastric muscle (PBD), tympanomastoid suture (TMS), stylomastoid artery, styloid process, ramus of mandible and transverse process of axis. The objective of this study is to assess consistent and reliable landmarks for identification of the FNT during parotidectomy.

##### **Methods**

This prospective study was carried out from 2022 to 2023 which included 35 fresh cadavers (70 parotid regions). The relationship of landmarks TP, PBD, TMS, to the FNT was assessed and the shortest distance between them from the FNT was measured using a slide caliper.

##### **Results**

We found that in 100% of cases we could identify the main trunk of facial nerve without much difficulty by using these three landmarks. The age of subjects in the surgical group ranged from 42 to 64 years with a mean of 54.4 years. The mean distance between the TP, PBD, TMS and the FNT was 9.15 mm (8.1–11.7 mm), 8.6 mm (7.2–9.8 mm) 6.5 mm (5.2–7.5 mm) respectively.

##### **Conclusions**

In our study we found that the TMS line is the most closest to the FNT followed by the PBD and the TP respectively. It was also observed that simultaneous use of these three landmarks would facilitate the identification of FNT easily.

**PP 52 Late Presentatio of Diabetic Foot Ulcers: Clinical Characteristics, Contributing Factors, and Impact on Treatment Outcomes -A prospective Study**  
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### **Introduction**

Diabetic neuroischemic wounds are common in Srilanka and have varying outcomes. Few studies have been done to analyze the outcomes.

### **Objective**

This prospective study aims to explore the clinical characteristics of patients with late-presenting diabetic foot ulcers, identify factors contributing to delayed presentation and their outcomes.

### **Methodology**

A prospective study was conducted from September 2022 to March 2023, on diabetic patients with neuro-ischemic ulceration. Data was analyzed with SPSS.

### **Result**

65 patients were included in this study. Mean age is 62 years (44 to 85) with male predominance 47 (72.3%). Among those only 12 (18.5%) presented first to the vascular surgeon with majority presenting to the GP 33 (50.1%).

47 patients managed their wound initially by themselves and only sought medical advice once the wound got worse, 10.2 days is the average time taken to meet a doctor. Only 8 (12.3%) wore diabetic foot wear before tissue loss, even though 30 (46.2%) people were aware about diabetic foot care. Mean time gap between the first visit to a doctor to a vascular specialist was 72.8 days.

Amongst those who present late (more than 14 days) to a vascular surgeon have a statistically significant major amputations and mortality rate ( $p=0.022$ ), despite having almost the same Wifii score (4.6 & 4.5) and same SINBAD score (3.3 & 3.4).

### **Conclusion**

Early diabetic foot care by vascular specialists were associated with good outcomes. There is a need to improve awareness amongst both diabetic patients as well as health care professionals on early diagnosis and timely referral to a vascular surgeon to improve limb salvage.

**PP 53 The outcome of diabetes-related major lower limb amputations in surgical wards of NCTH Ragama**  
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department of Surgery, North colombo Teaching Hospital, Ragama, Sri Lanka

### **Objective**

To evaluate the outcome of diabetes-related major lower limb amputations in the surgical wards of NCTH.

### **Study Design**

A prospective cohort study

### **Methodology**

Data was collected prospectively, using an interviewer-administered questionnaire that elicited information on demographics, personal details, type and indication of amputation, preoperative and postoperative glycemic control, stump-related complications, rehabilitation, comorbidities, and mortality.

### **Results**

The study included 50 patients who underwent major lower limb amputation. The gender distribution was 60% male ( $n=30$ ) and 40% female ( $n=20$ ). The mean age was 61.10 years. The majority of amputations were below the knee (84%,  $n=42$ ), while the rest were above the knee (16%,  $n=8$ ).

The rates of mortality at 1 month, 6 months, and 1 year were 12% ( $n=6$ ), 18% ( $n=9$ ), and 20% ( $n=10$ ), respectively. Causes for deaths were sepsis at 40% ( $n=4$ ) and myocardial infarction at 40% ( $n=4$ ) and older age 20% ( $n=2$ ).

The functional outcomes varied. 10% ( $n=5$ ) were bedbound, 10% ( $n=5$ ) were independent of the prosthesis, 22% ( $n=11$ ) depend on a wheelchair 28% ( $n=14$ ) were independent of a wheelchair 30% ( $n=15$ ) were independent of crutches.

### **Conclusions**

Major lower limb amputation is a life-saving event as a last resort when all other treatments have failed in severe diabetic foot complications in Sri Lanka, Post amputation life survival rates are comparable to the Western world, Majority of patients experience improved independently as functional outcomes after amputation.

**PP 54 Descriptive study on Arterio-Venous Fistula and its complication**

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**Introduction**

Arterio-Venous fistula (AVF) is a commonly using mode of vascular access for hemodialysis in end stage renal failure (ESRF) patients. The aim of this study is to analyze the complications and outcomes of AVF.

**Methodology**

This was retrospective descriptive study. Data was collected from bed head tickets, operative lists and patient clinic books over the period of November 2022 to January 2023.

**Results**

Forty three patients were included. Mean age was 49 years (11-77). Twenty five (58%) were males. Diabetic nephropathy (46%) was the most common cause for ESRF. Nineteen (44%) patients underwent AVF creation while on dialysis through a central venous line. All the AVFs were created in the upper limb (Radio cephalic – 14 (32.5%), Brachio cephalic – 22 (51%) and Brachio basilic and transposition – 7 (16%)). Twenty one patients (48.8%) resulted in complications out of which 50% patients presented after 2 weeks, 2 underwent kidney transplantation and 4 patient died. Post procedure complications were: Thrombosis in 6 (14%), Steal syndrome in 5 (12%), venous hypertension & limb oedema in 4 (9%) and failure of maturation in 6 (14%). 2 were salvaged with thrombectomy and interposition graft repair. Two patients with steal syndrome underwent distal revascularisation procedure to salvage AVF while others required ligation due to ischemia.

**Conclusion**

Early and timely detection of complications in AVF is essential for proper management. Early diagnosis and appropriate treatment are essential to improve the quality of life in patients on hemodialysis.

**PP 55 Outcomes of hepatocellular carcinoma in Sri Lanka - experience of a tertiary care referral unit.**

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**Introduction**

Hepatocellular carcinoma (HCC) is the fifth most common cancer globally and the most common primary liver malignancy, comprising over 90% of liver tumors.

HCC has variety of surgical and non surgical management options owing to its unfavorable prognosis

**Method**

Details of 320 consecutive patients with HCC from 2018 to 2022 extracted from a prospectively collected database. It was analyzed retrospectively for patient demography, tumour characteristics, treatment modes and their outcomes.

**Results**

Mean age of HCC is 65.2 years with male predominance (64%). Majority had a Child-Pugh A score. 50% of HCCs had only a solitary lesion. 20.2 % had diffuse type HCC. 31.2% of HCC were surgically resectable. Majority underwent Non Anatomical liver resections (48%) followed by hemihepatectomy (42%). Of the unresectable tumour, 58.7 % were offered locoregional therapy and 39% were offered palliation. 25.3% underwent ablative therapy while 73.5 % underwent arterially directed therapy. Most frequently employed ablative therapy is Thermal Microwave Ablation (60.4%)

**Conclusion**

Minority of HCCs are surgically resectable with a curative intent.

Locoregional therapy remains as a key management option for majority of HCCs in Sri Lanka.

**PP 56 The effect of local infiltration of methylene blue on post-haemorrhoidectomy pain – A systematic review and meta-analysis**

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**Introduction**

This study evaluates the effect of local infiltration of Methylene Blue (MB) on the pain following

haemorrhoidectomy.

### Materials and methods

A literature search was performed on MEDLINE, EMBASE, SCOPUS, and Google Scholar from inception to 31st May 2023 without any limitations on article type or language for studies reporting data on post-operative pain following haemorrhoidectomy and using MB. A meta-analysis was performed to estimate the effect of MB on the pain. Data extraction was according to the PRISMA guidelines. The quality of the included studies was assessed according to the Newcastle Ottawa Scale.

### Findings

Four articles were eligible for data extraction and quantitative analysis, and all four were included in the meta-analysis (MB-237, control-215). Two studies were randomized controlled trials.

All studies assessed postoperative pain using the visual analogue scale. The pain after surgery was significantly lower in the patients who received MB injections than the controls on postoperative days 1, 3, 5, and 7. There was no statistically significant difference on day 14. Patients receiving MB also required less oral analgesia ( $p < 0.001$ ). MB did not increase the risk of anal incontinence or other complications.

The studies had little heterogeneity and publication bias.

### Discussion and conclusions

MB infiltration at haemorrhoidectomy is effective in reducing the postoperative pain and the oral analgesia requirement without increasing anal incontinence or other complications.

### PP 57 Disease characteristics and treatment patterns of thyroid cancer in Sri Lanka: Retrospective analysis of a specialized tertiary cancer treatment centre-based registry.

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### Introduction

Thyroid cancer is the second-commonest cancer in Sri Lanka. This study aims to describe the disease characteristics and treatment patterns of thyroid cancer in Sri Lanka to bridge the gap in the literature regarding thyroid cancers in Sri Lanka.

### Methods

We analysed 2758 patients with complete information from the medical records of 2508 individuals with thyroid cancer maintained at a specialized tertiary cancer treatment centre in Sri Lanka. The seventh version of the TNM staging was used to define the cancer stage at diagnosis. The cohort was described using descriptive statistics. Parametric tests were performed to identify significant associations ( $p < 0.05$ ).

### Results

The majority were females (84.5%). The mean age was 43 (SD 13.56) years (males=44.6, females=42.6,  $p=0.017$ ). Around 96.9% were symptomatic. Papillary cancer was the commonest (79.2%), followed by follicular (17.6%), Hurthle cell (1.3%), medullary (1.2%), and anaplastic (0.5%). The majority underwent total thyroidectomy (85.3%), followed by lobectomy and completion (11.8%). Lobectomy was done in only 2.1%. The margins were involved in 11.2%. Some form of lymph node dissection was performed in 16.8%. The T-stage distribution was 49.9%, 32.5%, 15.8%, and 1.8% for T1, T2, T3, and T4 cancers, respectively. The majority had N0 disease (82.6%). Metastatic disease was documented in 1.1%. Radioiodine and external beam radiotherapy were received by 72.7% and 6.2%, respectively. Higher age ( $>45$  years) was significantly associated with non-papillary cancer, lymph node positivity, and metastatic disease.

### Discussion and Conclusion

The majority of thyroid cancers were diagnosed in a young and had favorable prognostic features. Higher age was associated with reduced prognostic features.

### PP 58 Short term management outcome of female breast cancer at a rural District General Hospital

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### Introduction

Breast Cancer (BC) is the commonest malignancy in females that leads to highest cancer mortality in Sri Lanka. Advanced disease at presentation leads to poor prognosis. Late

presentation of Female BC with advanced disease has been previously noted in Nuwara Eliya.

### Method

A descriptive case series analysis was performed on all newly diagnosed patients with female BC, managed by a single General Surgeon in 2021 at District General Hospital Nuwara Eliya. Prospectively maintained female BC database was reviewed to describe the patient demographics, disease specifications and management outcome. Tumour Node Metastasis (TNM) was used to stage the disease.

### Results

Within 44 cases (median age 51.2 years; range 31- 79) studied; 35 (79.5%), 7(15.9%) and 2 (4.5%) had invasive breast carcinoma nonspecific type, mucinous carcinoma and metaplastic carcinoma respectively. At presentation, 23(52.2%) had T4 lesions on TNM classification including 7 fungating lesions. According to TNM anatomical stage grouping; 2,10,7,18 and 7 patients were staged as IB, IIA, IIB, IIIB, IV respectively. Thirty one (19-Upfront surgery) had curative intent surgery and comprised 25-Pateys mastectomies and 6 lumpectomies with axillary clearance. 13 patients received palliative treatment (3 had palliative mastectomy and rest had chemo/radiotherapy.) There was one thirty day postoperative mortality. At one year disease specific mortality (DSM) was nine (20%)

### Discussion and Conclusion

Majority of female BC patients in the cohort, presented with advanced disease at initial assessment. Breast conservation rates were relatively low. DSM rate at one year was relatively high

### PP 59 Operative pattern and post operative outcome of cleft palate repair in a pediatric multi-disciplinary cleft center-Sri Lanka

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**Plastic and Reconstructive surgical unit Lady Ridgeway Hospital for Children, Sri Lanka**

### Introduction

Cleft palate is one of the commonest encountered clinical problems in pediatric plastic surgical practice. cleft center. Standard operative protocol adapted to individual patients and multi-disciplinary approach are aimed to improve overall outcome of the patient.

### Methods

Patient demographics, Operative details, and post operative outcome in terms of bleeding, surgical site infection, duration of hospital stay, and 30-day fistula rates were analyzed. Standard operative protocol was used in palate repair and perioperative management was carried out in terms of nutrition, speech therapy, dental rehabilitation, ENT and genetic assessment.

### Results

From January to May 2023, 48 cleft palates were repaired by Sommerlad technique using operating microscope. All children underwent multidisciplinary cleft clinic assessment and follow up peri operatively with special focus on nutrition and speech therapy. Majority were female children (n=26, 54%) and isolated cleft palate accounted for 88% of cases (n=42). In 85% (n=41), primary closure was possible and 5(10%) required lateral release of oral layer. Peri-operative bleeding was negligible, and one patient required a blood transfusion due to low preoperative hemoglobin. The mean duration of hospital stay was 3.4 days (range 3-7 days). None of the patients had surgical site infections and 3 patients had fistula in 30 day follow-up (6%). Fistulation was related to soft and hard palate junction.

### Discussion and conclusions

Multi-disciplinary approach and standardized operative protocol are useful in achieving optimum outcomes comparable with international cleft centers.

### PP 60 Metabolic profiling of serum of carcinoma gall bladder by proton magnetic resonance spectroscopy: a novel screening tool?

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**King George's Medical University, Lucknow, Uttar Pradesh, India**

### Introduction

Carcinoma of the gallbladder (CAGB) is the most common type of biliary tract carcinoma with a poor prognosis. Despite being discovered in the late 1700s, the precise etiology and aetiopathogenesis of CAGB are still unknown. Clinically its non-invasive diagnosis at an early stage is difficult from other inflammatory diseases such as chronic cholecystitis (CC) and xanthogranulomatous cholecystitis (XGC). We try to quantify metabolites of serum with the help of NMR for the early diagnosis of gallbladder cancer. This

study estimates the variation in metabolic profiling of gallbladder cancer concerning gallstone and healthy control. We used the ultrafiltration method to remove all the lipid and protein and focusing on small metabolites which vary in gallbladder cancer than gallstone and healthy control.

### Method

we use the ultrafiltration method for the removal of all protein and lipid and focusing on small metabolites. The <sup>1</sup>H NMR spectra recorded of filtered serum sample which consist control (n=30), benign (24), and Malignant (30). The multivariate statistical analysis was performed to estimate variation between these three groups.

### Result

The unsupervised pls-da analysis between Malignant and Benign, Malignant and Control, and Benign and Control show good separation with (R<sup>2</sup>-0.81, Q<sup>2</sup>-0.61 and Accuracy-0.92%, R<sup>2</sup>-0.93, Q<sup>2</sup>-0.89 and accuracy-0.60 and R<sup>2</sup>-0.82, Q<sup>2</sup>-0.64 and accuracy-0.94 respectively).glutamate increases in CAGB in comparison to CC.BCAA increases in the control group in comparison to diseased groups. Here glutamine depletion in CAGB and overexpression of glutamine in CC were obtained.

### Conclusion

The NMR based blood serum metabolomics use for discrimination between diseased groups and between diseased groups and control.

### PP 61 Liver Resections : Outcomes at a Tertiary Care Hospital

**Kasun Lakmal, Minidu Chandraguptha, Hasangi Gamage, Malith Nandasena, Sathasivam Kalaiyukan**  
Department of Surgery , University of Sri Jayawardenapura, Sri Lanka

### Introduction

Liver resection is an option to treat primary liver cell tumours, hilar cholangiocarcinoma and secondary metastasis disease and it carries significant morbidity and mortality. Aim of this study was to analyse the outcomes of a single centre and identify the factors affecting the outcomes of the procedure.

### Methods

We conducted retrospective review of records of 35 open liver resections performed for primary and secondary tumours during 18 months and analysed data for

demographics, intra operative and post operative outcomes.

### Results

Mean age of the study group was 55.80 years and 24 of them were males. Primary indications for resections were metastatic cancer(n=20), hepatocellular carcinoma (n=7), a benign disease(n=5 ) and hilar cholangiocarcinoma (n=3). Fifteen of them were right hepatectomies and twelve were non anatomical resections and rest were sectionectomies. Mean duration of the procedure is 4 hours and 20 minutes. There were no intra operative mortalities and 30 day perioperative mortality was 11.4% . Nine patients developed complications including biliary leak (n=3), wound dehiscence (n=2), sepsis(n=1), upper gastrointestinal bleeding(n=1), portal vein thrombosis with liver failure(n=1) and pulmonary embolism. Median length of hospital stay is 9 days. Chi square analysis shows significant higher incidence of complications in worse ASA category (p=0.083); lower MET score (p=0.034); and severe Child

stage (p=0.01). There was no significant lesser complication rate in complete resection of the tumour/R0 resection (p=0.213).

### Discussion and conclusions

Identification of common complications and factors associated with the outcome of the procedure are vital for surgical decision making.

### PP 62 Knowledge and attitudes on breast cancer among female patients diagnosed with breast cancer in Sri Lanka

**Gavesha De Silva, Maheeka Seneviwickrama, Hasangi Gamage, Kanchana Wijesinghe, Malith Nandasena, Naveena Somawickrama, Wasana Heiyanthuduwa, Yohan Chamara**

Centre for Cancer research, University of Sri Jayawardenapura. Department of Surgery, Faculty of Medical sciences, University of Sri Jayawardenapura, Sri Lanka

### Introduction

Breast Cancer (BC) is the commonest cancer and a leading cause of cancer related mortality among Sri Lankan women. Awareness of breast cancer by early detection is very important in the Sri Lankan setting since we don't have a national level screening method. We investigated the knowledge and attitudes on Breast Cancer among female patients diagnosed with Breast Cancer in Sri Lanka.

## Methods

A retrospective cross sectional study was carried out among female patients diagnosed with breast cancer. An interviewer administered questionnaire was used to gather data on socio-demographic variables and knowledge and attitudes towards BC.

## Results

Our study population consisted of 174 participants diagnosed with BC. A lump in the breast was identified as the most common symptom of BC. The mean knowledge regarding symptoms of BC was scored  $5.79 \pm 2.75$  out of total score of 9. Only 49.4% were knowledgeable about risk factors. 80.5% of participants were aware of Self Breast Examination (SBE) but only 15.3% were practising it. The most common sources of information on BC were identified as television, radio and through friends. Majority (54%, 63%) feared that Breast Cancer meant losing the breast and is incurable.

## Conclusion

This study demonstrates adequate knowledge on BC symptoms and SBE. However there is poor compliance in the practice of SBE. A significant proportion of the population still believed in BC related myths. These issues need to be addressed to improve early detection of BC in Sri Lanka.

## PP 63 Outcomes of Whipple's Procedure in a Tertiary Care Centre

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## Introduction

Whipple's surgical procedure is one of the major surgeries performed in tertiary care surgical centers. This is considered to be procedure with high morbidity and mortality. This study describes our 2 year experience of Whipple's procedure outcome.

## Methods

A retrospective review of prospectively maintained database was done. The rate of morbidity and mortality was found by analyzing the pre, peri and post-operative data. Follow up data was analyzed to look at disease recurrence.

## Results

The data which were collected since 2021 April to 2023 April includes 31 Whipple's pancreatico-duodenectomies 13 female patients (41.9%) and 18 males (58.0%) with mean age of 59.32 years. Mean duration of clinical symptoms was 10.1 weeks in which 3 people presented with fever, 22 with abdominal pain, 23 with loss of appetite, 18 with loss of weight, 22 with obstructive jaundice and 4 people with gastrointestinal bleeding. Thirteen patients of them were ASA I and 18 ASA II and 14 patients having MET score 4 to 7, 5 patients <4 and 12 patients >7. Mean preoperative bilirubin was 84.6 micromol/L. Twenty six patients underwent ERCP prior to the surgery. Most of tumours were malignant in which 15 peri-ampullary, 5 cholangiocarcinoma, 4 duodenal, 4 pancreatic and 1 GIST in origin and 2 were nonmalignant in nature. Among the Harvested Lymphnodes and 96.8 % of specimens were R0 resection margin with zero malignant cells.

## Discussion and conclusion

Outcomes of Whipple's surgery have to be identified properly for better surgical decision.

**PP 64 Delays in the presentation and diagnosis of breast cancer in Sri Lanka: A retrospective observational study**  
Gavsha De Silva, Maheeka Seneviwickrama, Aruni Jayasinghe, Hasangi Gamage, Kanchana Wijesinghe, Malith Nandasena, Naveena Somawickrama, Wasana Heiyanthuduwa, Yohan Chamara  
Centre for Cancer Research and Department of Surgery, Faculty of Medical Sciences, University of Sri Jayawardenapura, Sri Lanka

## Introduction

Breast cancer (BC) is the commonest cancer among women in Sri Lanka and contributes to cancer related mortality significantly. In this study we aim to investigate factors associated with delays in presentation and diagnosis of women with confirmed BC.

## Methods

A cross-sectional study was carried out on patients diagnosed with BC. An interviewer based questionnaire was used to gather data on socioeconomic variables and knowledge-attitude-practice of BC. Presentation delay (time between initial symptom and first consultation) was defined as  $\geq 3$  months. Diagnosis delay was defined as  $\geq 1$  month between presentation and diagnosis confirmation. A multivariable

logistic regression analysis was conducted to explore the associations.

### Results

174 patients were recruited to the study. 50% (87) patients had  $\geq 3$  month presentation delay. 53 (30.5%) had a diagnosis confirmation by  $\geq 1$  month. Presentation delay increased the risk of being diagnosed with advanced stage. (OR 18.57, 95%CI 6.025-57.253,  $p < 0.001$ ) but diagnosis delay didn't increase the risk of being diagnosed with advanced stage. (OR 1.01, 95%CI 0.433-2.568,  $p = 0.907$ ) Majority had presented to the government clinic. The most frequent reasons for delay in presentation were lack of awareness of symptoms (41.5%), low perceived severity (27.7%) and fear of surgical intervention (26.2%).

### Conclusion

Almost 50% BC patients in our setting had a delay in presentation which had a significant impact on the disease stage. The common reasons for delay were mainly addressable factors. We recommend public awareness to mitigate these issues.

### PP 65 Single Institutional study of tumour size, immunohistochemistry and pathological grading as predictive factors of nodal metastasis in breast cancer patients undergoing sentinel lymph node biopsy.

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### Introduction

Axillary assessment in breast cancer has evolved and sentinel node biopsy is the standard for clinically and radiologically negative axilla. This study aimed correlation of the tumour size, immunohistochemistry (IHC) and pathological grading as predictors of sentinel lymph node metastasis.

### Methods

A retrospective cross sectional study was done (Jan 2020 to April 2023), from the Colombo North University Surgical Unit Breast Cancer database. The end points were correlation of nodal positivity with; (i) tumour size, (ii) IHC profile and (iii) grade of the tumour. Statistical analysis conducted by SPSS (version 25) and significance was assigned to a  $p$  value  $< 0.05\%$ .

### Results

The study included 400 breast cancer patients with 149

patients underwent sentinel lymph node biopsy (SLNB) procedure in tertiary care unit. SLN contained metastasis in 41 patients (27.51%) There is a statistical significance of sentinel node positivity with IHC profile, ER/PR+ Her2 ( $p = 0.003$ ), ER/PR+ Her2+ ( $p = 0.151$ ), ER/PR-Her2+ ( $p = 0.008$ ) Triple negative ( $p = 0.001$ ) Histopathological grade 1 ( $p = 0.003$ ), grade 2 ( $p = 0.008$ ) Tumour size  $< 2$ cm ( $p = 0.01$ )

### Conclusion

There is a statistical significance in the positivity of the sentinel nodes in IHC profile except ER/PR+Her2+, histopathological grading and tumour size

### PP 66 Post operative symptomatic improvement of Lateral Tarsorrhaphy in facial nerve palsy- A Patient's Perspective

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### Introduction

Lateral tarsorrhaphy is a surgical procedure in which the eyelids are partially sewn together to decrease the size of the opening. The procedure is performed to protect the cornea and ocular surface and to allow/promote corneal healing. The length of the tarsorrhaphy closure can vary depending on the patients condition and the surgeons preference. Standard length suitable for our population has not been quantified.

### Methods

A prospective follow up study with patients underwent lateral tarsorrhaphy at plastic surgical unit, NHSL, Colombo for 3 months duration. Pre and post operative symptoms were assessed using Likert Scale.

### Results

Of the total 8 patients; 3 underwent redo-tarsorrhaphy. 5 patients who were operated for the first time were used in the study. Age of the sample ranged from 36 to 73 years with mean age of 52.4 years. Majority were males (80%,  $n = 4$ ). 60% ( $n = 3$ ) underwent R/S tarsorrhaphy. Extent of lateral-tarsorrhaphy was 2mm in 60% ( $n = 3$ ) with 3 mm and 4 mm in each 20% ( $n = 1$ ). Symptoms complained by patients included eye discomfort in 100% ( $n = 5$ ), eye pain in 80% ( $n = 4$ ), headache in and tearing 40% ( $n = 2$ ). There was a satisfactory symptom improvement on patients' perspective post-operatively.

None of the patients complained of post operative visual disturbances.

### **Discussion and Conclusion**

2-3 mm closure provides a satisfactory outcome considering patients perspective. The anatomical, functional, and patient outcomes following tarsorrhaphy rely on establishing the degree of eyelid closure that provides the best balance between the intended goals of the procedure and the patients visual needs.

### **PP 68 A modified O'Connor's technique using rotational bladder flap for the repair of large trigonal-supratrigonal vesicovaginal fistulas – our experience**

**Harvinder Singh, Ajay Pal, A Kumar, Amit Karnik, Gunjeet Kaur, K K Singh**  
KGMU, Lucknow, India

#### **Introduction**

To describe an approach for managing 20 patients with large, trigonal-supratrigonal vesicovaginal fistulas (VVF) using the rotational bladder flap technique.

#### **Methods**

The 20 patients who had large (2.1 to 4.2 cm). trigonal-supratrigonal VVF which was approached transabdominally, the bladder was opened along the sagittal plane near dome and further a bladder flap was fashioned such to fill the fistulous defect completely without tension. Margins of bladder and vagina dissected in fistula. Then, the vaginal defect was closed; followed by closure of bladder defect by using rotational flap and finally an omental flap was interposed and fixed between the vagina and bladder. Operative time was 65 to 90 minutes.

#### **Results**

Fistula closure was successful in all 20 patients, two patients required ureteric reimplant. All patients were dry after 3 weeks of suprapubic and per urethral catheter drainage with no recurrence or surgical reintervention for any reason for the follow-up duration. DISCUSSION /

#### **Conclusions**

The rotational bladder flap with modified O'Connor's technique technique is safe and effective for the repair of large trigonal-supratrigonal VVFs which always require tension-free repair.

### **PP 69 Descriptive study of patients with anal sphincter dysfunction presenting to the tertiary care center.**

**Thamisha Nugaliyadda, Dakshitha Wickramasinghe**  
NHSL, Sri Lanka

#### **Introduction**

Anal sphincter dysfunction has not only been a challenging but a difficult malady to find appropriate modalities of treatment. Objectives of this study is to identify the commonest presentation of the anal sphincter dysfunction and the physiology of it by manometry studies.

#### **Method**

A Prospective study consisting of 30 patients from the age of 17-82 presented with anal sphincter dysfunction have been recruited from the National Hospital, Colombo Sri Lanka and their Manometry studies have been analysed.

#### **Results**

A total of 30 patients amongst those 60% male and 40% female were included. The mean age of participants was 34. The indications for manometry study was as follows obstetric injury 36.7%, obstructed defecation 40% perineal injury following trauma 63.3% and anal incontinence 23.3% respectively. Frequency of incontinence was measured prior to the test using a standard tool of Cleveland where the frequency of solid, liquid, gas incontinence was measured categorized from 0-4. The highest percentage of incontinence was for liquid stool which indicated as 86.7%, those who scored the highest had the highest percentage in lifestyle changes 93.3%. manometry study indicated that the mean percentage of resting pressure of these individuals was 50.5 and the squeeze pressure was 218. 40.5% of patients significantly improved their symptoms following Keigels exercises and biofeedback therapy whilst 10.3% who underwent repair of sphincter had drastic improvement in manometry readings.

#### **Conclusion**

Manometry studies have shown a vital importance in determining the physiology of the sphincter pressures at rest and in squeeze which might help in determining the cause of the incontinence.

**PP 70 A prospective analysis of surgically treated oral cancer patients at a Tertiary care center in Northern India**

**Saumya Singh, Paarijat Suryavanshi, Anamika Rajpoot, Vaibhav Jaiswal**  
**KGMU UP Lucknow India**

**Background**

Oral cancers are one of the most common as well as devastating cancers in India. Surgery is the main modality of treatment for oral cancer. Defining individual risk, prognosis and outcome is complex and rely on key anatomic, biologic and clinical factors.

**Aim**

The aim of this study was to determine oral cancer patients characteristics, treatment details and pathological outcomes.

**Settings and Design**

This was a prospective analysis done at a Tertiary care center in Northern India.

**Materials and Methods**

Study included 31 surgically treated oral cancer cases between 2018-2021.

**Statistical Analysis**

We performed statistical analysis using IBM SPSS software. Data was analysed using frequency distribution and ANOVA was performed.

**Results**

A total of 31 cases were evaluated. The male-to-female ratio was 25:6. The mean age was 45.23 years, and 29% of the cases occurred in patients younger than 41 years. Most tumors consisted of moderately-differentiated SCC (61%).

**Conclusion**

The morbidity, outcomes of surgically treated oral cancer patients at our center are comparable to those treated in the developed world. Aggressive management of postoperative complications is crucial for early recovery and timely initiation of adjuvant treatment.

**PP 71 Descriptive study of patients with Fistula in Ano presenting to a tertiary care center.**

**Thamisha Nugaliyadda, Dakshitha Wickramasinghe**  
**NHSL, Sri Lanka**

**Introduction and objectives**

Fistula- In ano shows higher recurrence rates compared to other surgical procedures, this descriptive study was conducted in a tertiary care center where they were evaluated for the occurrence, histology, commonality, surgery types and recurrences.

**Methodology**

A prospective review was done on all post-operative patients diagnosed of fistula in ano from 2017-2023 at the National Hospital, Colombo. The Pathophysiological landmarks and the operative procedures were noted.

**Results**

A total of 795 patients were operated on among which 634 (79.7%) were male. Participants aged from 7-78 years of age with the mean age of 40.4. A variety of symptoms in which the patients were presented with were noted out of which the prominent were perineal discharge and lump, the commonest site of fistulas were found to be transphincteric 353 (44.4%) and the site for the internal opening were located below the dentate line 326 (41%). Majority of the fistula types which were seen were depicted as simple indicating 486 (61.1%), complex 141 (17.7%) and sinus tract 18 (2.3%). The operative procedures such as fistulotomy 41% was performed followed by the application of cutting seton 33%. The histology reports were of inflamed fistula tract 36.2%, Chrons 2% TB 0.5% and malignancy 0.4% respectfully. Only a portion of 5.2% were noted to have recurrent fistulas.

**Conclusion**

Surgical procedures such as fistulotomy and cutting seton application showed lower recurrence rate in patients with Fistula in ano.

## **PP 72 General awareness about risk factors and symptoms of Colorectal Cancer**

**Thamisha Nugaliyadda, Dakshitha Wickramasinghe, Goonj Johri, Saket Shekhar, Saroj K Mishra, Vivek Vijay Kumar**  
NHSL, Sri Lanka

### **Introduction and Objectives**

This study aimed to assess the level of general awareness about risk factors and symptoms of colorectal cancer (CRC).

### **Method**

A descriptive cross-sectional study was conducted between May 2022-May 2023. An adapted version of The Bowel Cancer Awareness Measure questionnaire was used. Individuals >18 years included and individuals couldn't apprehend the questionnaire were excluded.

### **Results**

A total of 400 patients [males=235,58.7%; median age=45.51(range:16-80) years] were included. 62 participants (15.5%) identified all the symptoms correctly, only 21(6%) participants identified all associated risk factors of CRC. Persistent abdominal pain was the commonly recognized symptom(n=257,72.6%). It was greatly erroneously identified that change in bowel habits wasn't a symptom of CRC by 15.2%(n=54). Significantly, the greatest percentage of participants(n=140,37.5%) were unaware that feeling the bowel wasn't empty, was a symptom of CRC. Among the 9 symptoms analyzed, mean number of symptoms identified were 5.65(SD-2.649). Majority stated (n =144;40.7%) CRC occurrence is unrelated to age. Consumption of more than one unit of alcohol was the most recognized risk factor(n=252,63%). Highest number of individuals disagreed(n=130,32.5%) that age >70 years as a risk factor for CRC. Considerably, 163(40.7%) were fairly confident in noticing CRC symptoms. Gender has correlation with the knowledge of symptoms (p = 0.049), neither highest level of education nor having cancer or known patient with cancer had influence on the knowledge of symptoms.

### **Conclusion**

The general awareness on CRC is suboptimal and widespread awareness programs warranted to improve people's knowledge of CRC.

## **PP 73 A prospective analysis of clinicopathological parameters of surgically treated oral cancer patients at a Tertiary care center in Northern India**

**Saumya singh, Paarijaat suryavanshi, Anamika rajpoot, Vaibhav Jaiswal**  
King Georges medical university UP Lucknow, India

### **Background**

Oral cancers are one of the most common as well as devastating cancers in India. Surgery is the main modality of treatment for oral cancer. Defining individual risk, prognosis and outcome is complex and rely on key anatomic, biologic and clinical factors.

### **Aim**

The aim of this study was to determine oral cancer patients characteristics, treatment details and pathological outcomes.

### **Settings and Design**

This was a prospective analysis done at a Tertiary care center in Northern India.

### **Materials and Methods**

Study included 31 surgically treated oral cancer cases between 2018-2021.

### **Statistical Analysis**

We performed statistical analysis using IBM SPSS software. Data was analysed using frequency distribution and ANOVA was performed.

### **Results**

A total of 31 cases were evaluated. The male-to-female ratio was 25:6. The mean age was 45.23 years, and 29% of the cases occurred in patients younger than 41 years. Most tumors consisted of moderately-differentiated SCC (61%).

### **Conclusion**

The morbidity, outcomes of surgically treated oral cancer patients at our center are comparable to those treated in the developed world. Aggressive management of postoperative complications is crucial for early recovery and timely initiation of adjuvant treatment.

## PP 74 Comparison of outcomes of thyroidectomy performed under superficial cervical plexus block and general anaesthesia

**Dr. Gopal Puri, Dr Chitresh Sharma, Dr Piyush Ranjan, Dr Kamal Kataria, Dr Anita Dhar, Dr Anurag Srivastava, Dr Sunil Chumber, India**

### Background

Thyroidectomy can be performed under general anaesthesia and superficial cervical plexus block.

### Objectives

The study for designed to assess and compare the outcomes including patient satisfaction for thyroidectomy performed under superficial cervical plexus block (SCPB) and general anaesthesia (GA) in adult patients undergoing thyroid surgeries for various indications.

### Methodology

This is an prospective observational study conducted from July 2021 to December 2022 at Department of Surgical Disciplines at AIIMS, New Delhi. This includes 210 patients, out of which 86 were operated under SCPB and 123 under GA. One patient was converted from SCPB to GA due to anxiety and apprehension and is excluded from the analysis. In the SCPB group, block was given at the Erb's point using 5-7 ml of 0.5% Bupivacaine. All patients received paracetamol 1g during the procedure and 50-100ug fentanyl was given as per need. The GA group received the routine general anaesthesia as followed by the Department of Anaesthesiology, AIIMS, New Delhi. Standard operative steps were followed in both the groups. Variables like hospital stay, skin to skin time, operating room time, nil per oral (NPO) time, recovery room time, pain scores and complications were noted. The patient feedback parameters were recorded on a likert scale. Patients were followed up for a minimum of 6 months for delayed/permanent complications. Statistical analysis was done using Chi-square test, one way ANOVA and Kruskal-wallis test depending on the variable.

### Results Refer to Table 1

Table 1: Clinical Outcomes during Thyroidectomy

Parameter		SCPB(n=86)		General Anaesthesia(n=123)		P Value
		Hemi-Thyroidectomy (n=55)	Total Thyroidectomy (n=31)	Hemi-Thyroidectomy (n=35)	Total Thyroidectomy (n=88)	
Age	Mean	36.3	40.1	34.8	43.2	0.004
	SD	12.3	11.9	9.4	16.2	
Sex	Male	13	24	5	14	0.55
	Female	42	7	30	74	
Pre-operative Stay (Days)	Mean	0.03	0.0	4.4	5.5	<0.00001
	SD	0.18	0.0	2.9	4.1	
Optimization Time (Days)	Mean	0.03	0.0	1.08	1.7	<0.00001
	SD	0.18	0.0	0.45	1.00	
Skin to Skin Time (Minutes)	Mean	44.83	77.83	72.14	124.83	<0.00001
	SD	10.19	14.24	9.84	14.1	
Operating Room time (Minutes)	Mean	58.16	93.48	97.34	155.03	<0.00001
	SD	10.79	15.06	9.81	16.61	
Intra-operative Pain (0-10)	Mean	1.65	2.03	NA		0.034
	SD	0.69	0.91			
Post-operative Pain (0-10)	Mean	3.31	2.22	3.28	1.94	<0.00001
	SD	0.92	0.92	0.82	0.84	
NPO Time (Hours)	Mean	0.50		6.73		<0.00001
	SD	0.00		4.45		
Recovery Room Time (Hours)	Mean	0.50		1.00	3.03	<0.00001
	SD	0.00		0.00	0.71	
Post-operative Stay (Days)	Mean	0.03	0.09	1.31	3.16	<0.00001
	SD	0.18	0.53	0.58	3.17	
Total hospital stay (Days)	Mean	0.07	0.09	5.74	9.29	<0.00001
	SD	0.37	0.53	3.05	5.51	
Complications	Hypocalcaemia	0	5	0	26	NA
	RLN Injury	0	0	0	3	
	Voice Change	0	0	0	5	
	VC Pain	0	0	0	4	
	Permanent Hypocalcaemia	0	0	0	3	
	Permanent Voice Change	0	0	0	1	
Patient Feedback Parameters (on Likert scale)						Critical chi square= 7.81
Pain	No	11	4	27	42	H-Static: 38.40
	Mild	35	21	8	46	P Value: <0.00001
	Moderate	9	6	0	0	
	Severe	0	0	0	0	
	Very Severe	0	0	0	0	
Anxiety	No	0	0	0	0	H-Static: 35.31
	Mild	26	11	32	78	P Value: <0.00001
	Moderate	25	15	3	10	
	Severe	4	5	0	0	
	Very Severe	4	0	0	0	
Overall Satisfaction	Very Satisfied	24	20	35	50	H-Static: 14.64
	Satisfied	21	11	0	37	P Value: 0.0021
	Enough Satisfied	0	0	0	1	
	Dissatisfied	0	0	0	0	
	Very Dissatisfied	0	0	0	0	

## PP 75 Study on the effects of bariatric surgery on Nonalcoholic fatty liver disease (NAFLD) using MR Elastography

**Dr Rishi Ranjan Shrivastava, Dr. Kona Lakshmi, Dr. Aditya Kalyan Yashoda Hospital, Somajiguda, India**

### Introduction

Study on the effects of bariatric surgery on Nonalcoholic fatty liver disease (NAFLD) using MR Elastography

### Aims and objectives

1. Effect of bariatric surgery on improvement of liver stiffness and steatosis
2. Any difference in outcome between Restrictive and Bypass techniques
3. Any deterioration of liver condition after these bariatric procedures
4. Correlation of change in hepatic steatosis to change in liver stiffness
5. Correlation of resolution of components of metabolic syndrome in relation to improvement of fatty liver.

### Materials and method

Place of study- Global Hospital, Hyderabad. Study Population- All morbidly obese patient undergoing bariatric surgery at our hospital, who are willing for pre-operative and

follow up MR Elastography of liver. Study design – A prospective, observational study. Period of study- from July 2015 to May 2017 for a period of 2 years. Final evaluation was done with 35 patients in the age group between 23 to 60. Out of these 35 patients, 15 underwent laparoscopic sleeve gastrectomy and 20 underwent bypass procedure (mini gastric bypass and Roux en Y gastric bypass). Preop and postop (6-8 mon) estimation of liver stiffness was done with MRE. We have correlated these changes with amount of excess weight loss and resolution of comorbidities and improvement of dyslipidemia, ALT and AST.

#### **Data collection**

Patient's demographic variables - age, sex, height, weight and BMI; presence of components of Metabolic syndrome (Type 2 diabetes mellitus, hypertension, dyslipidemia and OSA); biochemical characteristics such as fasting glucose, hemoglobin A1c (HbA1c), liver function tests (especially ALT and AST), fasting lipid profile were also noted.

#### **Results**

Mean weight decreased from 119.2 kg to 93.93 kgs; while the mean BMI decreased from 43.78 to 34.29 kgs. Total Cholesterol, HDL Cholesterol, LDL Cholesterol, Triglyceride also improved from preop values of  $183.83 \pm 35.24$  to  $150.43 \pm 29.79$ ;  $38.37 \pm 6.56$  to  $39.63 \pm 4.17$ ;  $109.56 \pm 29.48$  to  $109.56 \pm 29.48$ ;  $149.03 \pm 45.45$  to  $116.37 \pm 28.60$  with a p-value of 0.001, 0.342, 0.054, 0.004 respectively.

Resolution of Diabetes occurred in all subjects, Hypertension, Hypercholesterolemia occurred in all but 1 subject.

Liver HFF, stiffness decreased from  $15.48 \pm 8.75$ ,  $2.73 \pm 0.40$  to  $4.77 \pm 2.06$  and  $2.63 \pm 0.45$  with a p-value of 0.001 and 0.371

Improvement in Fatty liver occurred across all grades with a p-value of 0.001.

#### **PP 76 Quality of Life outcomes after prophylactic mesh placement during enterostomy closure.**

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#### **Introduction**

Hernia development at the site of a previous colostomy or ileostomy is delayed morbidity associated with enterostomy reversal. Stoma site incisional hernias are a major cause of patient morbidity as they cause abdominal pain, discomfort, impaired quality of life and an increase hospital stay and the number of surgical interventions.

#### **Methods**

We have performed a prospective non-randomized study for assessing Quality of Life Outcomes on a cohort of patients undergoing prophylactic synthetic mesh placement at the time of enterostomy closure.

#### **Results**

In our study performed from March 2021 to February 2023, we enrolled 34 patients undergoing prophylactic synthetic mesh placement at the time of enterostomy closure prospectively and QOL outcomes were assessed at 1, 3, 6 months and 1 year postoperatively using SF 36 and CCS (Carolina Comfort Scale). Mean age of our patients was 46.3 years and 67.6 percent (23/34) of patients were male. Mean SF 36 and CCS scores were decreased in immediate post operative period and at 1 Month but subsequent improvement at 3 months and 6 months with maximum at 1 year was seen.

#### **Conclusion**

Assessment of QOL outcome in preventive hernia surgery in our study reveals significant improvement at 1 year and provides further impetus to growing body of evidence in favor prophylactic mesh placement at time of enterostomy closure.

#### **PP 77 Role of thoracomyoplasty after window thoracotomy in chronic empyema thoracis**

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#### **Introduction**

Open window thoracostomy is considered in patients who are debilitated with thoracic empyema and involves creation of marsupialized pleural cavity after the resection of rib space. A

second stage thoracomyoplasty was considered in order to obliterate the previously infected chest wall cavity, once infection is controlled and wound is covered with healthy granulation tissue.

### **Materials and methods**

The study carried from January 2012 to September 2022. A total of 27 patients, between 15-70 years of age who had previously undergone open window thoracostomy done for stage III chronic empyema thoracis (with severely destroyed lung with or without bronchopleural fistula) were included in the study. The Quality of life score was obtained both preoperatively and postoperatively using SF- 36 QOL questionnaire.

### **Results**

There were significant difference was seen in SF-36 score physical functioning, role limitation due to physical health, role limitation due to emotional problem, energy/fatigue, emotional well being, social well being, pain, general health between pre-operative and post-operative in total study subjects. (p value <0.05). No significant difference was seen in SF-36 score between LD flap alone and LD flap with other flaps.

### **Conclusion**

In our study, we found that thoracomyoplasty is an effective approach to close chest wall defect after an open window thoracostomy. This two staged procedure can be used in treatment of advanced stages of empyema thoracis when patients have damaged lungs with multiple bronchopleural fistula and inability to tolerate single lung ventilation.