



# **JOURNAL OF THE CARIBBEAN COLLEGE OF SURGEONS**

**JCCS; 2022; VOL 1**



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# COVER DESIGN

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The cover design for the Journal of the Caribbean College of Surgeons depicts a satellite image of the Caribbean region taken from space. The image shows the tranquil beauty of the region on the background of the aqua blue Caribbean Sea.

Although, the Caribbean is relatively small, it casts a large footprint that can be seen far and wide.

The cover also shows the surgical main and satellite lights that we use on a daily basis to illuminate the work that surgeons do. The emblem of the Caribbean College of Surgeons is featured in the top left hand corner, bringing together the qualities of the Caribbean and the work of the surgeons.

The cover was designed by our past President, Dr. Cameron Wilkinson, and medical students from the Windsor Medical School, Omair Janjua and Shruti Patel.



# PRESIDENT'S MESSAGE

The Caribbean College of Surgeons in the Digital Age  
Shamir O. Cawich

## Author Details:

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The Caribbean College of Surgeons was incorporated in June, 2003 at the Kapok Hotel in Trinidad & Tobago. It was a grand event led by our first President, Sir Prof Errol Walrond. Since then, the annual meetings have become eagerly anticipated events, flavoured by Caribbean camaraderie and hosted in one of the beautiful regional territories.

Over the past two years, we have witnessed an arduous battle with the pandemic and seen drastic changes to surgical practice. The College turned to technology to navigate these obstacles in the digital age. This allowed us to continue providing fellowship, promoting research and providing opportunities for data to be shared with the international surgical community.

This year's Annual Symposium is again being held on a virtual platform, but it has not diluted our enthusiasm. The local organizing committee, headed by Drs. Francis, Greenidge and George, has worked hard to prepare another stellar meeting. They have prepared an exciting programme and I wish to thank them for their hard work and unwavering support.

I wish to also take this opportunity to thank the speakers who have spent many hours preparing their contributions. Members of the publication committee also deserve our praise for preparing this supplement to publish abstracts of the 20th annual scientific conference.

I now welcome you to the 20th annual scientific conference of the Caribbean College of Surgeons.

Best regards,

A handwritten signature in black ink, appearing to read 'Cawich' with a stylized flourish.

Professor Shamir Cawich  
Editor in Chief  
Journal of the Caribbean College of Surgeons



# Caribbean College of Surgeons

## 20<sup>th</sup> Annual Clinical Conference

### June 11-12, 2022

## Programme

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### *Saturday June 11, 2022*

- 1:00 pm      **Welcome Remarks: CCOS President**  
Prof. Shamir Cawich
- 1:05 pm      **Moderator's Instructions: CCOS Vice President**  
Dr. Charles Greenidge  
St. Lucia

### *Scientific Session 1: Colorectal*

- 1:10 pm      **Nationwide Standardization of Rectal Cancer Management in The Bahamas**  
Bodie D, Francis W  
The Bahamas
- 1:20 pm      **The Clinicopathological Features of Colorectal Cancer in Trinidad and Tobago**  
Muddeen A, Augustus M, Barrow M, Cawich SO  
Trinidad & Tobago
- 1:30 pm      **The Clinicopathological Profile and Quality Indicators for Opportunistic Screening Colonoscopies in Barbados. A Single-Center Pilot Study**  
Chase C, Reid A, Doyle A, Griffith SP  
Barbados
- 1:40 pm      **Expert Panel Discussion**  
Plummer JM, Jamaica  
George B, Sri Lanka

### *Scientific Session 2: Vascular*

- 1:50 pm      **Management of Abdominal Aortic Ulcers: A Case Series**  
Harnanan D, Pran L, Maharajh S, Hassranah S, Naraynsingh V  
Trinidad & Tobago
- 2:00 pm      **Pattern of Peripheral Vascular Injury in Military Wounds- Further Evidence for Resuscitation Planning and the Need to Improve Design of Protective Gear**  
Deen R, Ratnayake AS  
Sri Lanka
- 2:10 pm      **Variability in Management Guidelines for Diabetic Foot Disease in the Caribbean**  
Sumpio BE, McConnie S, Maharaj D  
U.S.A.

- 2:20 pm **Achilles Tenotomy in Non-Healing Diabetic Foot Ulcer**  
*Hassranah S, Harnanan D, Maharajh S, Naraynsingh V*  
*Trinidad & Tobago*
- 2:30 pm **The Experience of a Vascular Service in the Anglophone Caribbean with COVID -19 Thrombosis: A Prospective Study**  
*Harnanan D, Bobb KA, Pran L, Rampersad A, Calderon C, Naraynsingh V*  
*Trinidad & Tobago*
- 2:40 pm **Early Fasciotomy in Vascular Injured Limbs May Confer Limb Protection**  
*Deen RYI, Ratnayake AS*  
*Sri Lanka*
- 2:50 pm **Expert Panel Discussion**  
*Newnham ME, Jamaica*  
*Sumpio B, U.S.A.*

### *Scientific Session 3: Thoracic / Thyroid*

- 3:00 pm **Spontaneous Pneumomediastinum and Pneumothorax Associated with Covid -19 Pneumonia: A Multicenter Prospective Case Series**  
*West M, Bobb K A, Ramnarine I, Sagubadi S, Calderon C, Rampersad A*  
*Trinidad & Tobago*
- 3:10 pm **Bronchopulmonary Carcinoids and Neuroendocrine Tumors: Is Stereotactic Ablative Radiotherapy (SART) Effective Treatment?**  
*Ahamad A, Salenius S, Koontz B*  
*U.S.A.*
- 3:20 pm **The Recurrent Laryngeal Nerve Does Not Lie in the Tracheoesophageal Groove**  
*Naraynsingh V, Ramnarine A, Hassranah S, Maharajh S, Cawich S*  
*Trinidad & Tobago*
- 3:30 pm **Expert Panel Discussion**  
*Coye A, Belize*  
*Smith A, Barbados*

### *Scientific Session 4: General*

- 3:40 pm **Umbilical Hernia Repair: A New Approach**  
*Greenidge C, Burt R, Francis T*  
*St. Lucia*
- 3:50 pm **Epidemiology of Femoral Herniae in an Eastern Caribbean Nation**  
*Mohammed S, Islam S, Jarvis J, Richardson R, Harnarayan P, Hassranah D, Dan D, Maharaj R, Ramdass MJ, Cawich SO, Naraynsingh V*
- 4:00 pm **Outcomes of Inguinal Hernia Repair Using Re-Sterilized Mesh at a Resource Poor Hospital in The Caribbean**  
*Rampersaud M, Algu T*  
*Guyana*



- 4:10 pm **Same Day Discharge Protocol for RARP: experience of a High-Volume Referral Center**  
Reddy SS, Noël JJ, Moschovas MC, Bhat S, Perera R, Rogers T, Stirt D, Doss J, Jenson C, Andrich J, Patel VR  
U.S.A.
- 4:20 pm **Impact of the COVID-19 Pandemic on Urological Surgeries at a Hospital in Trinidad and Tobago**  
Deodath R, Kawal T, Leach J, Hosein A  
Trinidad & Tobago
- 4:30 pm **Motorcycle Injuries at the Saint Ann's Bay Hospital: A Comprehensive Review**  
Fletcher C, Thompson C, James K, Lambert-Fletcher K  
Jamaica

#### *Scientific Session 5: Minimally Invasive Surgery*

- 4:40 pm **Laparoscopic Management of Perforated Duodenal Ulcer in a Resource-Poor Hospital**  
T Algu  
Guyana
- 4:50 pm **Emergency Laparoscopic Cholecystectomy in a Tertiary Hospital in Trinidad and Tobago: A 7-Year Prospective Study**  
Islam S, Maughn A, Bheem V  
Trinidad & Tobago
- 5:00 pm **Laparoscopic Resection of Gastric Gastro-Intestinal Stromal Tumours**  
Street J, Griffith L, Manjunath G  
Trinidad & Tobago
- 5:10 pm **Closing Remarks:**  
Dr. Vonetta George  
Antigua
- 

#### *Sunday June 12, 2022*

- 1:00 pm **Welcome Remarks:**  
CCOS Vice President  
Dr. Charles Greenidge

#### *Scientific Session 6: Hepatopancreaticobiliary*

- 1:10 pm **Benign Pneumobilia and Pneumatosis Intestinalis in COVID-19 Infection**  
Johnson B, Mancheno D, Garcia-Castro D, Ramachandra P  
U.S.A.
- 1:20 pm **Endoscopic Ultrasound in the Management of Solid & Cystic Pancreatic Neoplasms**  
Rambally R, Johncilla M, Maharaj D, Ragbirsingh I, Griffith L, Maharaj R, Dan D, Sandy S  
Trinidad & Tobago

1:30 pm **Equity in Access to Healthcare in Public and Private Sectors of Trinidad & Tobago from a Hepatico-Pancreatico-Biliary Perspective**  
*Guelmo-Daisley E, Cawich S*  
*Trinidad & Tobago*

1:40 pm **Surgical Management of Giant Hepatic Cysts in the Caribbean**  
*Cabral R, Cawich SO, Naraynsingh V*  
*Trinidad & Tobago*

1:50 pm **Expert Panel Discussion**  
*Rahul Deshpande, United Kingdom*  
*Francis W, The Bahamas*

### **Scientific Session 7: Breast**

2:00 pm **Distribution of Triple Negative Breast Cancers (TNBCs) in The Bahamas**  
*Bodie D, Turner B, Major D*  
*The Bahamas*

2:10 pm **The Pushing Sign for Early Skin Tethering in Breast Cancer**  
*Jarvis J, Milne D, Harnanan D, Islam S, Singh Y, Maharajh S, Hassranah S, Naraynsingh V*  
*Trinidad & Tobago*

2:20 pm **Breast Implant-Associated Anaplastic Large Cell Lymphoma: A Caribbean Perspective**  
*Mitchell K, Mohammed F, Romany S*  
*Trinidad & Tobago*

2:30 pm **Accuracy of Intra-Operative Palpation of Lymph nodes in Early Breast Cancer in a Resource Poor Setting: A Prospective Study**  
*Islam S, Maughn A, Shah A, Aziz I, Mohammed S, Ramnarine M, Dial S, Naraynsingh V*  
*Trinidad & Tobago*

2:40 pm **Expert Panel Discussion**  
*Olivierre L, Trinidad & Tobago*  
*Rajkumar S, Guyana*

### **Scientific Session 8: Paediatric Surgery**

2:50 pm **A Complete Pentalogy of Cantrell**  
*Seecharan A, Landreth-Smith B*  
*Trinidad & Tobago*

3:00 pm **An Audit of Surgical Pathologies in Adolescent Children age 12-16 Years**  
*Rampersad B, Baijoo S, Ramdass A*

3:10 pm **Case Series of Delayed Diagnosis of Anorectal Anomalies**  
*Baijoo S, Rampersad B, Khan R*  
*Trinidad & Tobago*

3:20 pm **Expert Panel Discussion**  
*Knowles A, The Bahamas*  
*Seepersaud M, Guyana*

### **Scientific Session 9: Transplantation Chapter**

- 3:30 pm      **Pathway to Tissue Transplant Legislation in Guyana**  
*Persaud K*  
*Guyana*
- 3:40 pm      **The National Organ Transplant Unit of Trinidad & Tobago: Fifteen Years**  
*Samuel MC, Harnanan D, Valeron A, Lynch S*  
*Trinidad & Tobago*
- 3:50 pm      **Paediatric Liver Transplantation in Jamaica**  
*Abel C*  
*Jamaica*
- 4:00 pm      **Expert Panel Discussion**  
*O'Shea M, Barbados*  
*Paquette N, Barbados*

### **Scientific Session 10: Clinical Cases**

- 4:10 pm      **A Closed-Loop Audit Assessing the Usage of Thyroid Shields Among Operating Room Personnel in a Major Trauma Centre**  
*Kalaventhnan P, Dishanth S, Mendis DCD, Marasinghe MMGSN, Marage PNC, Parathan S, Fernando PNSK*  
*Sri Lanka*
- 4:20 pm      **Assessment of Burnout in Junior Surgical Doctors in a Tertiary Hospital**  
*Seecharan A, Rampersad B*  
*Trinidad & Tobago*
- 4:30 pm      **Controlled Rupture of Sebaceous Cysts**  
*Naraynsingh V, Hassranah S, Maharajh S, Jarvis J, Milne D*  
*Trinidad & Tobago*
- 4:40 pm      **Lymphadenopathy due to Tattoos**  
*Maharajh S, Hassranah S, Naraynsingh V*  
*Trinidad & Tobago*
- 4:45 pm      ***A childhood thoracocervical lymphatic malformation***  
*Seecharan A, Dubay C, Landreth-Smith B, Ramnarine I*  
*Trinidad & Tobago*
- 4:50 pm      **Micropore Tape Closure of Infected Surgical Wounds**  
*Hassranah S, Maharajh S, Naraynsingh V*  
*Trinidad & Tobago*
- 4:55 pm      **Massive Rectal Haemorrhage**  
*Maharajh S, Hassranah S, Naraynsingh V*
- 5:00 pm      **Closing Remarks: CCOS Secretary**  
*Dr. Wesley Francis*  
*The Bahamas*

# ABSTRACTS

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## Scientific Session 1: Colorectal

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### **NATIONWIDE STANDARDISATION OF THE MANAGEMENT OF RECTAL CANCER IN THE BAHAMAS**

*Bodie D, Francis W*

*Princess Margaret Hospital, Nassau, Bahamas*

Email: daleciabodie@gmail.com

**OBJECTIVE:** Rectal cancer represents approximately 30% of cases of colorectal carcinoma in the Bahamas. The objectives of this study were to determine the prevalence of rectal carcinoma and to determine the outcomes of current management practices for rectal carcinoma at the Princess Margaret Hospital in Nassau.

**METHODS:** A retrospective chart review of clinical and histopathologic reports of patients diagnosed with rectal carcinoma in the Bahamas over a 10-year period.

**RESULTS:** There was a 19.6% prevalence of rectal cancer at the PMH. Two-thirds of patients were male, and most were diagnosed with early-stage disease. Approximately 77% of patients had preoperative biopsy diagnoses. However, 32.3% received preoperative staging. A low anterior resection (LAR) with TME was performed as standard surgical procedure for upper and middle rectal tumours. Delays in patient management were noted in time between biopsy diagnosis to definitive operative procedure (70 days), and time between definitive operative procedure to histopathologic diagnosis (32 days). There was 71% overall 10-year survival in patients with rectal cancer at the Princess Margaret hospital.

**CONCLUSION:** There is a 19.6% prevalence of rectal cancer in The Bahamas with a male preponderance. There was a significant deficiency in preoperative staging and significant delays in patient management are result of deficiencies in reporting and referral systems.

### **THE CLINICOPATHOLOGICAL FEATURES OF COLORECTAL CANCER IN TRINIDAD AND TOBAGO**

*Muddeen A, Augustus M, Barrow M, Cawich SO*

*Port of Spain General Hospital, Trinidad and Tobago*

Email: alyssa.arianne@gmail.com

**OBJECTIVE:** International data has recently demonstrated a right-sided shift in the anatomic distribution of colorectal cancer (CRC). The objective of this study was to describe the demographic and pathological features of CRC diagnosed in Trinidad and Tobago (TT), the anatomic distribution, and determine the association between these features and tumour location.

**METHODS:** A retrospective study was conducted on patients with histologically confirmed CRC between January 2010-May 2021. Information was collected on age, gender, ethnicity, year of diagnosis, anatomic site, histological grade, lymphovascular invasion and American Joint Committee on Cancer (AJCC) stage.

**RESULTS:** A total of 365 patients were analysed. The average age of patients diagnosed was 64.4 years old (SD 13.24). There was no gender preponderance (1:1) and most patients were Afro-Caribbean. Over the 10 year period, there were more right-sided cancers (41%) versus left-sided (32%) and rectal (27%),  $p < .001$ . Right-sided cancer was the most common anatomic location in both genders, but females accounted for the majority (55% vs 45%). Right-sided tumours were also more common in the elderly, persons of Afro-Caribbean descent and tended to presented at a more advanced stage.



**CONCLUSION :** This study demonstrates that the features of CRC in TT are similar to those reported regionally and internationally. This data can be utilised to implement a tailored CRC screening program for TT and the Caribbean.

## **THE CLINICOPATHOLOGICAL PROFILE AND QUALITY INDICATORS FOR OPPORTUNISTIC SCREENING COLONOSCOPIES IN BARBADOS. A SINGLE-CENTER PILOT STUDY**

*Reid A, Chase C, Doyle A, Griffith A*

*Caribbean Colon Cancer Initiative, Bridgetown, Barbados*

Email: [courtenaychase24@gmail.com](mailto:courtenaychase24@gmail.com)

**Objective:** According to the American Institute for Cancer Research, Barbados had the 8th highest rate of colon cancer in 2018. Despite these grave statistics, there is no national colon cancer screening program. This research serves to evaluate clinicopathological features and quality indicators of screening colonoscopies done at a single Barbadian ambulatory surgical center between 2012 and 2021.

**Methods:** Patients who had a screening colonoscopy at the center between 2012-2021 were selected. Patient demographics along with site, size and final pathological diagnosis of all polyps were tabulated and analyzed. The following colonoscopic quality indicators were calculated; the adenoma detection rate (ADR), polypectomy rate (PR), and caecal intubation rate (CIR).

**Results:** 597 colonoscopies were performed in the study period. 25.4% were screening colonoscopies. Mean age of adenoma diagnosis was 60.3 for women and 61.2 for men with M: F of 1.6 :1. ADR was 32.8%. PR was 53.9% and CIR was 99.3 %. 91 adenomas were identified and 56.0% of them were right-sided. At least one high-risk feature was identified among 53.8 % of patients with adenomas and 27.4% of all cases screened.

**Conclusions:** In conclusion, we demonstrated high quality screening colonoscopies by international metrics of quality with a significant proportion of proximal and high-risk adenomas. We hope to introduce use of these quality indicators to an optimized national colon cancer screening program.

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## **Scientific Session 2: Vascular Surgery**

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### **MANAGEMENT OF ABDOMINAL AORTIC ULCERS: A CASE SERIES**

*Harnanan D, Pran L, Maharajh S, Hassranah S, Naraynsingh V*

*Eric Williams Medical Sciences Complex, Trinidad and Tobago*

Email: [sk\\_maharajh@hotmail.com](mailto:sk_maharajh@hotmail.com)

**OBJECTIVE:** Penetrating aortic ulcers are atherosclerotic lesions penetrating from the intima to the media. They are most commonly described in the thoracic aorta, but their presence in the abdominal aorta can result in progression to intramural hematoma formation, saccular aneurysms and eventual rupture. This series highlights the varied clinical presentations, emergent and elective management options and the outcomes of patients with penetrating abdominal aortic ulcers.

**METHODS:** A retrospective study was done on 8 patients presenting to the Emergency Department (ED) of a tertiary medical institution in Trinidad with complications from penetrating abdominal aortic ulcers.

**RESULTS:** Two patients presented hemodynamically unstable to the ED and were diagnosed with ruptured aortic aneurysm secondary to aortic ulcer and both succumbed (1-intra-operatively and other palliated). Two patients presented to the ED with rupture of the abdominal aorta and were managed emergently with an endovascular aneurysm repair (EVAR). One patient's ulcer was found incidentally and was repaired endovascularly prior to a kidney transplant. Two patients were managed via open surgery (1 electively and the other as an emergency). One patient is on active surveillance to determine progression.

**CONCLUSION:** Penetrating abdominal aortic ulceration is a potentially life-threatening diagnosis. Given its pathophysiology and known sequence of progression, such patients should be prioritized and followed closely by a vascular specialist, risk stratified and afforded timely and appropriate intervention. The diagnosis is rarely identified early and as they can ultimately present with complications of progression they should be managed aggressively.

### **PATTERN OF PERIPHERAL VASCULAR INJURY IN MILITARY WOUNDS- FURTHER EVIDENCE FOR RESUSCITATION PLANNING AND THE NEED TO IMPROVE DESIGN OF PROTECTIVE GEAR.**

*Deen R, Ratnayake AS*

Department of Surgery, The Military Hospital, Colombo, Sri Lanka.

Email: raeceddeen30@gmail.com

**OBJECTIVE:** Injury to peripheral arteries in the battlefield risk ischaemic limb loss. We evaluated a database of arterial injury in wounded infantrymen to determine the pattern of arterial injury and to suggest methods of future protection.

**METHODS:** 128 War wounded soldiers, all male; between 19 and 30 years, with primary peripheral arterial injury through either gunshot or bomb blast were studied. After first aid and resuscitation in a field hospital, they were admitted under the care of a consultant military surgeon (ASR) for further management. Arterial injury was recognised by combination of physical evaluation, limb pulses, doppler/duplex ultrasound and/or CT angiography. All patients underwent surgical exploration and management of peripheral artery injury. Data were documented prospectively and maintained on an Excel database; analysis was by enumerators within the program.

**RESULTS:** Gunshot (65; 51%) and blast injuries (51;40%) comprised the major aetiology of peripheral artery injury. Arterial injury of the lower limbs (89; 70%) predominated over upper limb injuries (32; 25%). Of 93 lower limb arterial injuries, the frequency of femoral arterial injury (46; 50%) and popliteal artery injury (43;46%) were similar; the remaining 4% involved minor arteries. Of 32 upper limb arterial injuries, the majority involved the brachial artery (Brachial 23;72%, Cubital 4; 12.5%, Axillary 4;12.5%, Radio-ulnar 1; 3%). There were 115 documented arterial lacerations, most were complete transections (63;55%). 13 (11%) had thrombotic arterial occlusion. Management was by interposition vein graft, direct repair, patch angioplasty and embolectomy. Interestingly, 73 (78.5%) lower limb and 28 (87.5%) upper limb arterial injuries were in proximity to the knee or elbow joint respectively.

**CONCLUSIONS:** In this series, the majority of military arterial injuries were observed in proximity to the knee or elbow joints. The data are helpful in resuscitation planning and for future design of safety and reinforcement of personal gear in security personnel.

## **VARIABILITY IN MANAGEMENT GUIDELINES FOR DIABETIC FOOT DISEASE IN THE CARIBBEAN**

*Sumpio BE, McConnie S, Maharaj D*

Department of Vascular Surgery, Yale University School of Medicine, New Haven, Connecticut, USA

E-mail: [bauer.sumpio@yale.edu](mailto:bauer.sumpio@yale.edu)

**OBJECTIVE** The prevalence of diabetic foot (DF) disease and, as a result, lower extremity amputation rates remain high in the Caribbean. This study was undertaken to determine whether Caribbean countries have designated individuals that monitor DF disease and whether there are protocols consistent with the International Working Group on the Diabetic Foot (IWGDF) guidance documents.

**DESIGN AND METHODS:** Relevant DF health care personnel(s) from the CARICOM and Dutch Caribbean countries were called or sent questionnaires regarding the presence of structured programs to monitor and manage DF problems in the population.

**RESULTS:** All 25 countries (100%) responded. 81% of respondents could not identify any Ministry, Hospital or individual initiatives that monitored the DF. Only 9 (36%) countries had any guidelines in place. Only 3 countries with guidelines in place utilized IWGDF guidelines. Only 6 (24%) countries had podiatrists and 10 (40%) had vascular surgery availability. 7 (28%) countries had the components for a multidisciplinary team.

**CONCLUSIONS:** There appears to be a lack of a conscientious systematic approach by Caribbean countries to DF disease. A designated individual and/or a multidisciplinary approach for DF disease was absent in the majority of respondent countries. Only a minority of countries implemented DF guidelines or had expertise available to organize a DF multidisciplinary team. Vascular surgery and podiatric care were noticeably deficient. These may be critical factors in the variability and reduced success in implementation of strategies for managing DF problems and subsequent amputations amongst these Caribbean countries.

## **ACHILLES TENOTOMY IN NON-HEALING DIABETIC FOOT ULCER**

*Hassranah S, Harnanan D, Maharajh S, Naraynsingh V*

Medical Associates Hospital, St. Joseph, Trinidad and Tobago

Email: [samara.hassranah@live.com](mailto:samara.hassranah@live.com)

**OBJECTIVE:** The Achilles tendon in diabetics undergoes microscopic reorganization leading to its shortening. The resulting equinus deformity, combined with neuropathy, allows pressure ulcers to form on the plantar aspect of the forefoot. Without offloading the pressure at these points, the lesions remain open. Lengthening of the Achilles tendon restores normal movement to the ankle and removes pressure allowing ulcers to heal. This short, same day procedure, done under local anaesthetic allows immediate hyperextension of the tendon.

**METHODS:** 14 patients with non-healing ulcers had tenotomies. Ankle extension before and after was documented and time taken for the ulcers to heal post operatively recorded. Markings are made at 3cm intervals from the insertion of the tendon. Local anaesthetic is infiltrated on both sides of the tendon. A 15 blade is used to divide half of the tendon at 3cm, 6cm and 9cm alternating sides.

**RESULTS:** All patients showed immediate improvement in the amount of ankle extension; ulcer healing was achieved on average by 4 weeks. Follow up time was 6 months.

**CONCLUSIONS:** Achilles tendon lengthening is an easy, safe, same day procedure for diabetic patients and should be considered as an option for non-healing pressure ulcers to the soles of their feet.

## **THE EXPERIENCE OF A VASCULAR SERVICE IN THE ANGLO CARIBBEAN WITH COVID-19 THROMBOSIS, A PROSPECTIVE CASE SERIES.**

*Harnanan D, Bobb K A, Pran L, Rampersad A, Calderon C, Naraynsingh V*

*Eric Williams Medical Sciences Complex*

*kellyabobb@gmail.com*

**OBJECTIVE:** The aim of this study was to examine the characteristics and clinical outcomes of positive COVID-19 patients, presenting with acute limb ischemia (ALI), during the coronavirus pandemic.

**METHODS:** A multi-center, prospective, observational study was undertaken. Patients included were COVID 19 positive cases, who presented with or developed acute limb ischemia, between August 2020 and April 2022.

**RESULTS:** Over the 21 month period, 24 patients met the inclusion criteria, with analysis of 25 consecutive limbs. The median age of the cohort was 63.7 years (42-88) of which, 58.3% were male. The most common comorbidities were diabetes (45.8%) and hypertension (33.3%). 12.5% (3/24) of patients presented with signs of acute arterial ischemia. 12.5% (3/24) of patients were found to have had extremity thrombosis at multiple levels. Treatment arms were categorized as medical, open surgery, and endovascular management. The limb salvage rates for Rutherford categories IIa and IIb were 83.3%. 68% of patients were treated with systemic anticoagulation only. Non-surgical management was more prevalent in severe cases of Covid-19 disease, 37.5%. 9 (37.5%) died in hospital (the leading cause of death being ARDS & Multiorgan failure).

**CONCLUSION:** Our approach to the management of ALI in the setting of Covid-19 posed unique challenges, with increased mortality (from systemic complications) and poorer outcomes.

## **EARLY FASCIOTOMY IN VASCULAR INJURED LIMBS MAY CONFER LIMB PROTECTION.**

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**OBJECTIVE:** The role of prophylactic fasciotomy in vascular trauma is controversial. The aim of this study was to assess the rate of limb amputation in war injured soldiers, with limb artery injury, who underwent early versus delayed fasciotomy.

**METHODS:** 63 Soldiers admitted under the care of a single surgeon (ASR), who sustained gunshot or blast injury to their limb/s, underwent either early fasciotomy in a field hospital setting (Group1; n=21) or delayed fasciotomy in a military hospital (Group 2; n=42). Data were entered prospectively into an Excel database. The primary end-point was limb amputation. Ischaemic time, associated soft tissue and bony injury, and the anatomic site of arterial injury were evaluated. Data were analysed by a test of proportions; non-parametric data were analysed by the Wilcoxon test. Significance was assigned to a p-value <0.05.



**RESULTS:** There were 7 upper limb and 14 lower limb arterial injuries in Group 1 compared with 10 upper limb and 32 lower limb arterial injuries in Group 2. Overall mortality was 6%. Limb amputation was performed in 2 (9.5%) in Group 1 versus 14 (33%) in Group 2 (Amputation: Group 1- upper limb 0; lower limb 2. Group 2- upper limb 1; lower limb 13;  $p < 0.05$ ). Median (range) ischaemic time for Group 1 vs. Group 2 was 345 mins. (150-655) vs. 270mins. (160-645);  $p > 0.05$ . There was no significant difference in associated soft tissue or bony injury between groups [Soft tissue: Group 1-17(81%) vs. Group 2- 26(62%) and Bone: Group 1- 8(38%) vs. Group 2-15(36%)  $p > 0.05$ ].

**CONCLUSIONS:** In soldiers with limb arterial injury, early fasciotomy in the field appeared to have a limb protective effect compared with delayed fasciotomy in hospital.

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### **Scientific Session 3: Thoracic / Thyroid**

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#### **SPONTANEOUS PNEUMOMEDIASTINUM AND PNEUMOTHORAX ASSOCIATED WITH COVID -19 PNEUMONIA: A MULTICENTER PROSPECTIVE CASE SERIES.**

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**OBJECTIVE:** The aim of the study is to examine the characteristics and clinical outcomes of positive COVID-19 patients, presenting with Spontaneous pneumomediastinum and its associated conditions (pneumothorax, subcutaneous emphysema), during the coronavirus pandemic.

**METHODS:** A prospective, multi-center study, was performed. Data were collected from 3 Covid 19 dedicated tertiary health care facilities from December 2020 to February 2022. The inclusion criteria were the presence of pneumomediastinum, pneumothorax, or subcutaneous emphysema. Patients who had invasive or non-invasive intubation prior to presenting were excluded from this study. Other data collected included demographics, laboratory investigations, clinical management, vaccination status, and survival.

**RESULTS:** 34 patients met the inclusion criteria, with a median age of 54.2 years (29 – 80). 73.5% were male. 67.6% (23) patients had pneumomediastinum only, 32.4% (11) had pneumothoraces (2 with associated pneumomediastinum). 61.8% (21) of patients were managed conservatively. Survival at 30 days was not significantly different for pneumomediastinum (82.5%) and pneumothorax (63.6%,  $p = .243$ ), with the overall survival being 76.5%. 52.9% of the cohort had a severe CT severity score grading.

**CONCLUSION:** The development of spontaneous pneumomediastinum is correlated with severe and worsening viral pneumonia. Management options vary and are dependent on the presence of pneumothorax and the need for invasive respiratory support.

## **BRONCHOPULMONARY CARCINOIDS AND NEUROENDOCRINE TUMORS: IS STEREOTACTIC ABLATIVE RADIOTHERAPY (SART) EFFECTIVE TREATMENT?**

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**OBJECTIVE:** Most bronchopulmonary carcinoids and tumors with neuroendocrine features (BPCNE), excluding small cell carcinoma are treated surgically. SART is increasingly utilized in the US to ablate small cancers at many sites: a noninvasive, brief, technically precise outpatient technique. We tested the hypothesis that SART is effective therapy for BPCNE despite its radioresistance to conventional radiotherapy.

**METHODS:** With IRB approval, clinical and treatment information of BPCNE treated with SART was obtained by querying an in-house network-wide record system and analyzed for overall survival (OS) progression-free survival (PFS), and toxicity with Kaplan-Meier method using the SAS statistical software.

**RESULTS:** 27 patients (median 79.2 years (range 57-93) were treated from 2008-2017. Surgery was not performed because of comorbidity or advanced age. Most patients were treated with 5 fractions. There was no Grade 3/4 toxicity: acute toxicity in 2 patients (weakness and exacerbation of COPD), and late toxicity in 1 patient (grade 2 rib pain). At median follow-up 19.5 months (range 1.4 - 66.9), no patient recurred locoregionally while 3 (11.1%) metastasized distally: PFS at 24 months was 87% and OS was 60%. Among the 22 patients with follow-up radiographic evaluation, 81.8% had complete or partial response. No characteristic correlated with OS or PFS.

**CONCLUSION:** 100% of this group of predominantly elderly and poor performance patients had their disease locally controlled with minimal toxicity: SART is safe and effective for these tumors. Given its cost-effectiveness and increasing use, it is a reasonable treatment option.

## **THE RECURRENT LARYNGEAL NERVE DOES NOT LIE IN THE TRACHEOESOPHAGEAL GROOVE**

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**OBJECTIVE:** The recurrent laryngeal nerve (RLN) is described as coursing along the tracheoesophageal groove (TEG). We noticed during thyroid surgery, the RLN is often not in the TEG, prompting us to define its anatomy accurately.

**METHODS:** The RLN was identified during 29 anatomical lobectomies. A photograph was taken intraoperatively. Two lines were drawn on each image, one in the TEG and the other along the nerve. The angle where both lines intersect was measured. The data collected was analysed. If the nerve is in the TEG the angle will be zero and will rise incrementally as it deviates from the TEG

**RESULTS:** Twenty-nine nerves were included in this study, 12 on the right and 17 on the left. On the right the angle ranged from 15 – 45° (mean 27.5°); on the left the range was 0 – 45, (mean 25.5°). Thus, as it courses caudally from the laryngeal entrance, it almost always deviates further from the TEG, thus being quite lateral at the lower pole of the thyroid gland. In only 1 case did the nerve truly run its course in the TEG. In 4 cases, all on the left, a precise angle could not be defined as the nerve changed course sharply.

**CONCLUSIONS:** It is quite unusual for the RLN to lie in the TEG as it courses posterior to the thyroid gland. Thus, in mobilizing the thyroid lobe medially during thyroidectomy, one must exercise care as it is likely that one encounters the RLN well lateral to the TEG.

**UMBILICAL HERNIA REPAIR: A NEW APPROACH**

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**OBJECTIVE:** To describe a novel technique for repairing umbilical hernias

**TECHNIQUE:** Umbilical hernia repair is a common operation. The repair usually involves a circumferential skin incision. However we wish to introduce a novel technique which involves a vertical midline incision directly through the umbilicus. This approach offers excellent exposure with a scar less result. Many surgeons are already doing a lead up to this approach when they introduce a laparoscopic trocar by open technique.

**CONCLUSION:** Surgeons may consider this technique as an alternative to the traditional approach to hernia repair

**EPIDEMIOLOGY OF FEMORAL HERNIAE IN AN EASTERN CARIBBEAN NATION**

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**OBJECTIVE:** Femoral hernia is frequently reported in female. The risk of missed diagnosis and strangulation is high. The exact epidemiology of femoral hernia in the Caribbean population was not reported before, hence the reason for this study.

**METHODS:** This a retrospective study of all femoral hernias operated in 3 major hospitals in Trinidad and Tobago during the period of January 2012 to December 2021. Data were collected from theater log book and from patients medical record on patients' demography, hernia characteristic, methods of diagnosis and treatment and outcomes.

**RESULTS:** A total of 54 femoral hernia surgeries were performed, 68.5% emergency and 31.5% elective. 66% of the surgeries were performed by the surgical resident. The average age of our study population was 64.37 (31-96) with male and female ratio of 1.7:1. 83% of our patients were of African, 11% East Indians and 6% mixed ethnic origin. Groin swelling with pain was the most common presenting features (45%) followed by groin swelling alone (28%). More than 50% of patients were diagnosed by clinical examination alone followed by radiological (20%) and 18.5% were diagnosed by both clinical and radiological examination (18.5%), and 6% intra-operatively. 14.8% of our patient had bowel resection and a SSI rate of 2.5%.

**CONCLUSIONS:** Femoral hernia was predominately seen in Afro compared to Indo-Trinidadian. A significantly higher percentage of male were noted have femoral hernia in our study compared to the rest of the world. The rate of missed diagnosis, strangulation and complication rates were minimal in our study.

## THE OUTCOMES OF INGUINAL HERNIA REPAIRS USING RE-STERILIZED MESH AT A RESOURCE POOR HOSPITAL IN THE CARIBBEAN

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**Objectives:** Open inguinal hernia repair using prolene mesh is the standard of care for management of inguinal hernias. Prolene mesh is not provided universally at public hospitals in Guyana. The purpose of this study was to evaluate the complications of inguinal hernia repairs done with re-sterilized mesh in a resource-poor hospital.

**Method:** This was an audit of all Inguinal Hernia Repairs done with re-sterilized mesh performed at the New Amsterdam Regional Hospital (NARH) from December 2015 to February 2020. Patient records were reviewed followed by a telephone interview which identified patients who required clinical assessment.

**Results:** There were 48 Inguinal Hernia Repairs done in 43 patients during the study period. All patients were followed up at 2 and 6 weeks, however, 5 were lost to long term follow up. The mean duration of follow up was 33.5 months (16 to 65, SD 17.8). The mean age of the group was 46.5 years (18 to 74, SD 14.8). At two weeks follow up there were 1 superficial infection (2.1%), 1 hematoma (2.1%) and 3 seromas (6.3%), all resolved with conservative management. They were 3 patients with inguinodynia (7.9%).

**Conclusion:** The use of re-sterilized mesh is a good option in resource-poor settings where factory sterilized mesh is not universally provided. Re-sterilized mesh has been used at the NARH for over four years with acceptable outcomes.

## SAME DAY DISCHARGE PROTOCOL FOR RARP: EXPERIENCE OF A HIGH-VOLUME REFERRAL CENTER

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**OBJECTIVE:** There is increased value in performing same-day discharge (SDD) protocols to minimize COVID 19 exposure and maintain surgical treatment for oncological patients. We performed a prospective analysis of outcomes of SDD protocol after robotic-assisted radical prostatectomy (RARP).

**METHODS:** The SDD criteria included patients with no intraoperative complications, stable postoperative hemoglobin levels, stable vital signs, normal urine output, ambulation without dizziness, tolerance of liquids, pain control with oral medication, and patient/family confidence with SDD. Patients older than 70 years, concomitant general surgery operations, multiple comorbidities, and complex procedures such as salvage surgery were excluded.

**RESULTS:** 101 patients met the criteria for SDD, 73 (72%) had a successful SDD. All SDF (Same day discharge failure) patients were discharged one day after surgery. Intraoperative characteristics were not statistically different with a median operative time of 92 (81-107) vs 103 (91-111) minutes for SDD and SDF respectively. 28 SDF patients, was due to anesthesia-related factors of nausea (35%), drowsiness (7%), patient/caregiver preference (25%), pain (14%), labile blood pressure (7%), arrhythmia (7%), and dizziness (7%). There was no significant difference in readmission rates, complication rates, or post-operative pain scores between SDD and SDF patients.



**CONCLUSIONS:** SDD for patients undergoing RARP can be safely and feasibly incorporated into a clinical care pathway without increasing readmission rates. We were successful in 72% of cases due to coordinated care between anesthetics, nursing staff, and appropriate patient selection. This is crucial to minimize exposure to COVID-19 during the surgical treatment of prostate cancer.

## **THE IMPACT OF THE COVID-19 PANDEMIC ON UROLOGICAL SURGERIES AT A HOSPITAL, TRINIDAD AND TOBAGO**

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**OBJECTIVE:** To assess the effect of operating theatre pandemic restrictions on urologic surgeries at a Caribbean hospital.

**METHODS:** All urologic surgeries performed during the 18-month pandemic period of April 2020 to September 2021 were compared to those done during a similar pre-pandemic period of April 2017 to September 2018. The data were analyzed to determine how the pandemic affected numbers and types of surgeries. Cases requiring general or regional anaesthesia were classified as major; while local anaesthesia cases were deemed minor.

**RESULTS:** The number of major cases performed decreased by 50.7% and minor cases decreased by 12.9%. Prior to the pandemic 563 major cases treating stone disease were done, however, only 253 such cases were done during the pandemic period. The percentage of cancer cases performed increased from 14% to 22.1%. Of all oncologic surgeries, bladder tumor resection was the most common procedure, being the only subset to increase from 69.7% in the pre-pandemic period to 81% in during the pandemic time. Among emergency cases, the most common cause for intervention in both groups was sepsis. There was a decrease in percentage of trauma cases from 17.3% to 12.2% and an increase in cancer cases booked as emergencies from 1.1% to 8.1%.

**CONCLUSION:** The pandemic decreased the number of major cases and therefore definitive management by 50.7%.

## **MOTORCYCLE INJURIES SEEN AT THE SAINT ANN'S BAY HOSPITAL – A COMPREHENSIVE REVIEW**

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**OBJECTIVES:** To describe the distribution of injuries, hospitalization rates by body areas injured, and surgery-requiring admissions, and to identify independent predictors of admission to a regional hospital in Jamaica.

**METHODS:** A cross-sectional study was conducted among persons presenting to the St Ann's Bay Regional Hospital in Jamaica (2016–2018) with injuries sustained from motorcycle crashes. A census was done of patients admitted to the surgery ward from the emergency room, and from the Orthopaedic Clinic. A questionnaire was administered within 24 hours to elicit data on sociodemographic characteristics, motor vehicle collision circumstance and motorcycle specifications, physical injuries sustained and medical management, as well as compliance with legal requirements for riding a motorcycle.

**RESULTS:** The study consisted of 155 participants; 75.3% of motorcyclists with injuries required admission. The average length of stay was 10 days. Surgery was required for 71.6% of those admitted. Lower limb injuries constituted 55% of all injuries. The independent predictors for admission were alcohol use and total body areas involved. Motorcycle crash victims who used alcohol close to the time of crash were three times more likely to be hospitalised than those who did not consume alcohol. As the total body areas involved increased by one, there was a threefold increase in the likelihood of being admitted. Additionally, the greater the number of body areas involved, the greater was the likelihood of admission.

**CONCLUSIONS:** Lower limb injuries are the most commonly reported injuries. Alcohol and total body areas involved are independent predictors of hospitalisation.

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### **Scientific Session 5: MIS**

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#### **LAPAROSCOPIC MANAGEMENT OF PERFORATED DUODENAL ULCER IN A RESOURCE-POOR HOSPITAL**

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**OBJECTIVE:** The aim of this study was to determine the outcomes of patients with perforated duodenal ulcers that were managed Laparoscopically using a Modified Graham's Patch in a resource-poor unit.

**METHODS:** This is an audit of the outcomes of all patients who had a perforated duodenal ulcer and approached laparoscopically over a one-year period (September 22<sup>nd</sup>, 2018 to September 21<sup>st</sup>, 2019). Patient records were retrieved, and initial data was collected followed by a telephone interview to assess if the patient required a clinical evaluation.

**RESULTS:** There were four cases of perforated duodenal ulcers that were managed laparoscopically using a modified Graham's Patch. The mean age was 37.5 years (range 20 – 60), all of whom were males. The mean surgery time was 153 minutes. One patient developed post-operative ileus. Patients were followed up at 2- and 6-weeks post discharge with no complications. Telephone interviews done at a mean time of follow up of 11 months revealed no significant complications.

**CONCLUSION:** Perforated duodenal ulcers can be safely managed using a laparoscopic approach to omental patching even in resource-poor settings, however, careful patient selection is essential.

## **EMERGENCY LAPAROSCOPIC CHOLECYSTECTOMY IN A TERTIARY HOSPITAL IN TRINIDAD AND TOBAGO - A 7-YEAR PROSPECTIVE STUDY**

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**OBJECTIVE:** Emergency cholecystectomy can reduce recurrent hospitalization and morbidity of the patient. The aim of this study is to document the outcomes of emergency laparoscopic cholecystectomy in severe acute cholecystitis patient.

**METHODS:** It is a prospective study conducted in a tertiary hospital during the period January 2015 to December 2021. All patients admitted in the surgical ward under one surgical unit with the diagnosis of acute cholecystitis who failed to improve by conservative treatment after 24 hours and also all patients admitted with the diagnosis of mild acute gall stone pancreatitis were included in this study. Patient's demography, clinical details and treatment outcomes were prospectively recorded.

**RESULTS:** Out of 84 patients, 80% were female and 20% were male with a mean age of 46.75. Only 21% of our patients were waiting for elective surgery and 23 % had recurrent admission. The average duration of symptoms was 3.28 (1-6) days. The average WBC of our study was 21.73 (15-28.3). 16% of these patients had gall stone pancreatitis and others were simple acute cholecystitis, empyema, perforations of GB, mucocele, emphysematous cholecystitis, liver abscess and perforated GB with SBO accounts 34%, 22%, 13%, 10%, 2%, 2%, and 1% of these cases respectively. Only 1 patient had subtotal cholecystectomy (1.23%). The conversion rate was 2.46%. There was no injury to the bile duct but adjacent visceral injury in 1 patient.

**CONCLUSIONS:** Emergency laparoscopic cholecystectomy can be performed successfully in presence of a skilled laparoscopic surgeon in all patients presenting with acute cholecystitis with a very low conversion rates and a minimal or no injury to the bile duct or adjacent viscera. It can reduce recurrent hospitalization and morbidity in these patients.

## **LAPAROSCOPIC RESECTION OF GASTRIC GASTRO-INTESTINAL STROMAL TUMOURS**

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**OBJECTIVE:** The surgical technique for resecting Gastrointestinal Stromal Tumours (GIST) of the proximal stomach is determined by the patient's unique clinical presentation including the tumour's symptoms size, location, and histological features. Surgical management of these tumours were traditionally performed utilizing an open approach, however with minimally invasive procedures, outcomes comparable to open surgery are readily demonstrated. In this paper, we illustrate various laparoscopic approaches to managing proximal gastric GIST based on three different clinical scenarios encountered.

**METHODS:** The series of cases were obtained retrospectively via from patient hospital records which included surgical procedures and outpatient follow up.

**RESULTS:** Three (3) patients had varying clinical and anatomical presentations; two with Upper Gastrointestinal bleeds, while the other had symptoms of dyspepsia and early satiety. Each patient had been diagnosed via CT scanning and upper endoscopy, with biopsy and histology, confirmation of GIST. The metastatic risk ranged from low to moderate. Each tumour had varied significantly in size and location: the gastrointestinal junction, fundus, and cardia of the stomach, respectively. All patients had on table endoscopic preoperative tattooing. The procedures included 1), a two staged procedure (trans gastric resection, then proximal gastrectomy), 2), sleeve gastrectomy, and 3), wedge resection. Clear margins were seen in all cases, with nil surgical complications, resolution of symptoms, and no recurrence at one year follow up.

**CONCLUSIONS:** GIST tumours in the proximal stomach can be safely managed laparoscopically by different approaches. Careful preoperative planning based on radiologic, anatomic, and clinical factors helps determine which management pathway is likely to provide the best outcome.

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## **Scientific Session 6: Hepatopancreatobiliary**

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### **BENIGN PNEUMOBILIA AND PNEUMATOSIS INTESTINALIS IN COVID-19 INFECTION**

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**INTRODUCTION:** SARS-CoV-2 virus is known primarily as the respiratory pathogen responsible for pneumonia since its outbreak in Wuhan, China in December, 2019, and evolving into a global pandemic phenomenon by March, 2020. Over the last two years, with millions of infections world wide and the development of multiple variants, we can now appreciate that SARS-CoV-2 affects multiple organ systems. We present a case of benign pneumatosis intestinalis due to SARS-CoV-2 infection.

**REPORT OF A CASE:** A 77 year old male with past medical history of heart failure with reduced ejection fraction, hypertension and hyperlipidemia presents with two week history of non bloody diarrhoea associated with generalised malaise, abdominal cramps and mild intermittent shortness of breath. At presentation, the patient was hemodynamically stable and saturating 96% on room air. Abdomen was soft and non tender. Labs were significant for acute kidney injury with creatinine of 2.8, normal white blood cell count and normal lactate level. CXR demonstrated patchy opacification at the right costophrenic angle. CT abdomen and pelvis without contrast showed subsegmental atelectasis in right lung base, multiple branching foci of gas in liver and small foci of gas seen circumferentially in cecum. Stool studies were unremarkable. Serial abdominal examinations were unchanged and conservative management was adopted.

**CONCLUSION:** Pneumatosis intestinalis and pneumobilia in the setting of SARS-CoV-2 infection can successfully be managed non operatively provided there are no signs of peritonism on serial clinical examination. This case serves to advocate for individualized management in the setting of SARS-CoV-2-dependent pneumatosis intestinalis.

## ENDOSCOPIC ULTRASOUND IN THE MANAGEMENT OF SOLID & CYSTIC PANCREATIC NEOPLASMS

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**BACKGROUND:** Endoscopic Ultrasound (EUS) has emerged as an invaluable tool in the diagnosis, staging and treatment of pancreatic neoplasms with Interventional EUS guided tissue acquisition the standard of care for pancreatic sampling.

**METHODS:** This is a retrospective study of 11 consecutive patients referred for Endoscopic ultrasound and managed over the time period October 2020 to January 2022. The main outcome of treatment success was defined as obtaining information on staging, resectability or tissue diagnosis.

**RESULTS:** A total of 11 patients underwent EUS with FNAC/ FNAB. Ages ranged from 35 years to 90 (mean 62.5). There were 7 males and 4 females. The results were as follows- metastatic disease confirmed in 2 cases after biopsies of 8 mm liver deposit and an encasing coeliac artery mass respectively. Reclassification from borderline resectable to resectable in one case of pancreatic adenocarcinoma. Three patients were confirmed as pancreatic IgG 4 disease, High grade neuroendocrine tumour and lymphoma (periportal node). Confirmation of chronic pancreatitis and pseudocysts in 3 male patients who presented with a Pancreatic duct stricture with no mass and 2 with indeterminate pancreatic masses / cystic lesions on imaging.. Three patients with obstructive jaundice had synchronous EUS & ERCP. There was a 100 % tissue (or cytology) diagnosis with zero complication rate and all patients discharged within 24 hours.

**CONCLUSION:** This series (first in the English speaking Caribbean) highlights developments in diagnostic and interventional EUS for pancreatic neoplasms including celiac plexus interventions, fiducial placement, EUS guided RFA of benign and malignant pancreatic tumours.

## EQUITY IN ACCESS TO HEALTHCARE IN PUBLIC AND PRIVATE SECTORS OF TRINIDAD & TOBAGO FROM A HEPATICO-PANCREATICO-BILIARY PERSPECTIVE

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**AIM:** Equity in health enables individuals to attain their full potential for health. This audit attempts to objectively assess the presence of equity across the public and private health sectors using referral waiting times, investigation and definitive management times. The study aims to prove that horizontal and vertical equity exist across both health sectors.

**METHODS:** A retrospective audit of patients having a Whipple's procedure for pancreatic adenocarcinoma and laparoscopic cholecystectomies for gallstone disease at the Port- Of- Spain General hospital and West Shore medical Facilities between January 2018 and December 2020 was done.

**RESULTS:** A statistically significant difference in mean referral, investigation and operation times for laparoscopic cholecystectomy, between public and private sectors was found. Thus, indicating that horizontal equity does not exist. Publicly, the average times for Pancreatic adenocarcinoma were all shorter than those of gallstone disease possibly indicating that vertical equity exists but was not reliably demonstrated. Privately, there was a statistically significant difference between these average times for the two groups but not in favor of the pancreatic cancer group. Thus, vertical equity does not exist.

**CONCLUSION:** Neither horizontal nor vertical equity were demonstrated across the public and private health systems indicating a need for health care reform.



## TOPIC

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### Scientific Session 7: Breast

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#### **DISTRIBUTION OF TRIPLE NEGATIVE BREAST CANCERS (TNBCS) IN THE BAHAMAS**

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**OBJECTIVE:** TNBCs comprise approximately 12% to 15% of breast cancers in the United States (1, 2). These are generally regarded as the more aggressive type of breast cancer with no available target treatment regimens. Given our unique genetic predisposition and the aggressive nature of TNBC, researchers aimed to determine the distribution, management, and outcomes of patients with TNBC in The Bahamas.

**METHODS:** A retrospective chart review of clinical and histopathologic reports of Bahamian patients diagnosed with TNBCs between 2016 and 2021 was conducted.

**RESULTS:** There is a 15% prevalence of TNBCs in The Bahamas. The average age at diagnosis is 52 years. Only two (4.3%) patients were able to undergo BRCA testing due to financial constraints. Patients had an average BMI of 33.5 kg/m<sup>2</sup>. Most (30.4%) patients presented with early-stage disease. Over three-quarters (77.8%) of patients with early-stage disease received mastectomies as surgical management of TNBCs. There is an 82.6% overall 5-year survival rate of TNBCs in The Bahamas.

**CONCLUSION:** The prevalence (15%) of TNBCs in The Bahamas is comparable to international reports. There is a role for routine testing for BRCA gene mutations in Bahamian patients diagnosed with TNBCs. Patients with early stage TNBCs are being overtreated with mastectomies. Bahamian patients with TNBC have a higher overall 5-year survival (82.6%) than reported in literature (78.6%).

#### **THE PUSHING SIGN FOR EARLY SKIN TETHERING IN BREAST CANCER**

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**OBJECTIVE:** Skin tethering (ST) is regarded as a classical clinical feature of breast cancer. In many cases, ST is not evident on inspection, with the arm raised or on skin pinching over the lump. We have observed that pushing the lump in one or another direction may elicit skin dimpling that was not otherwise evident.

**METHODS:** A series of 6 cases were documented with photographs showing the unremarkable breast tissue before and the obvious dimpling elicited after the lump is pushed.

**RESULTS:** The pushing sign elicited skin dimpling in all 6 cases and breast cancer was subsequently diagnosed on biopsy in these patients.

**CONCLUSIONS:** A positive pushing sign should increase the suspicion of malignancy and may indicate the need for a biopsy in the absence of suspicious radiographic findings. Even in the absence of tethering or arm elevation or skin pinching, tethering may be evident on pushing the mass.

## **BREAST IMPLANT ASSOCIATED ANAPLASTIC LARGE CELL LYMPHOMA (BIA-ALCL): A REVIEW AND THE CARIBBEAN PERSPECTIVE.**

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**OBJECTIVE:** Breast Implant Associated Anaplastic Large Cell Lymphoma (BIA-ALCL) is a rare Anaplastic Lymphoma Kinase Negative, CD30 positive Non Hodgkins Lymphoma. The estimated incidence is currently low, ranging from one to three cases per million implanted women. However, this figure may rise with the increasing popularity of breast augmentation and increased awareness about BIA-ALCL among clinicians. This presentation encompasses a brief literature review and describes the global response, including the Caribbean, to BIA-ALCL.

**METHODS:** A literature review was conducted using the PUBMED database. The keywords utilized were “Breast Implant Associated Large Cell Lymphoma”, “Texturized breast implant” and “Brentumixab Vedotin”. Recommendations of the Caribbean Association of Plastic and Reconstructive Surgeons for BIA-ALCL are also included.

**RESULTS:** The Food and Drug Administration registered 744 global unique medical device reports and 36 deaths attributed to BIA-ALCL to date. The average time from implantation to diagnosis ranges from 7.5 to 10 years with a median age at diagnosis of 47 to 58 years. BIA-ALCL has a multifactorial pathophysiology, which likely involves a chronic inflammatory response to textured implants and chronic biofilm, in a genetically susceptible person. Treatment during early presentation has an excellent prognosis (5-year survival 70-90%).

**CONCLUSIONS:** The development and utilization of regional and international breast implant registries are an integral response to BIA-ALCL. A multidisciplinary approach with early diagnosis and management is associated with an excellent prognosis. Textured implants have a clear association with BIA-ALCL and use of these implants should be avoided. Alternatively, the use of smooth implants or autologous reconstruction should be considered.

## **ACCURACY OF INTRAOPERATIVE FINGER PALPATION OF LYMPH NODES IN EARLY BREAST CANCER IN A RESOURCE POOR SETTING: A PROSPECTIVE STUDY**

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**OBJECTIVE:** Intraoperative evaluation of SNLs by frozen section is a reliable procedure for diagnosis of SLN metastasis however; FS is not available in many developing countries. No study has evaluated the accuracy of intra-op palpation of sentinel and non-sentinel lymph nodes to detect LN metastasis.

**METHODS:** This prospective study was conducted in the breast unit of SFGH during the period of January 2019 to February 2022. SLN lymph nodes and any abnormal non-SLN were harvested by using Methylene blue dyes. All lymph nodes were individually palpated and recorded as positive, negative or equivocal in the presence of surgical residents and nurses. This finding was instantly verified by frozen section and later by H & E stain. In case of equivocal finding, final decision was made based on the preop USS or CT scan description of the ALN.

**RESULTS:** 129 patients were underwent SLNB. Intraoperative frozen section was possible in 120 patients but not available in 9 patients as surgeries were performed out of routine hours due to COVID 19 restriction. Surgeon's intraoperative assessment was correct in 98.4% with sensitivity, false negative rate and a negative predictive value 99.21%, .78% and 33.33% respectively. Surgeon's intraoperative assessments were correct in all patients where frozen section was not available.

**CONCLUSION:** Intraoperative finger palpation of SLN and non SLN in combination of preoperative ultrasound and CT findings of axillary lymph nodes is a viable alternative approach in resource poor setting where frozen section is not readily available with a good accuracy and low false negative rate.

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## **Scientific Session 8: Paediatric Surgery**

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### **A COMPLETE PENTALOGY OF CANTRELL**

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**INTRODUCTION:** We present a case of pentalogy of Cantrell - a rare, congenital disorder characterized by defects of the midline supraumbilical abdominal wall, sternum, diaphragmatic pericardium, anterior diaphragm and heart.

**CASE PRESENTATION:** A male neonate born with complete Pentalogy of Cantrell was born at term to a 26-year-old G4 P4+4 mother, weighing 2935g. He underwent a primary repair of an omphalocele major with repair of the congenital diaphragmatic hernia on day two of life. He was discharged with the repair of cardiac defects being planned.

**CONCLUSION:** Multidisciplinary care and pre-operative planning are essential in patients with Pentalogy of Cantrell. Timing of surgical interventions is debated with each case having unique risk-benefit ratios. Stable neonates may benefit from conservative management, allowing epithelialization of the omphalocele sac while critically ill patients require increased supportive care, in turn impacting the timing of surgery.

### **AN AUDIT OF SURGICAL PATHOLOGIES IN ADOLESCENT CHILDREN AGE 12-16 YEARS OLD.**

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**OBJECTIVE:** The purpose of this study is to highlight the various surgical pathologies managed in the adolescent age group 12-16 years.

**METHOD:** A retrospective review of all Surgical admissions to the Paediatric Surgical Ward for the period 2016-2021 was performed. All patients presented to the Paediatric Emergency Department at Eric Williams Medical Sciences Complex. Surgical specialties included General (Adult), Ears, Nose and Throat (ENT), Orthopaedics, Plastics, Ophthalmology, Maxillo-Facial, Vascular, Thoracic, Urology and Neurosurgery.

**RESULTS:** There was a total of 962 patients admitted to the Paediatric Surgical ward over the 6 year period amongst the mentioned surgical specialties. The males comprised 64% (611/962) and females 36% (351). Orthopaedics accounted for the most cases, 37% (360/962) followed by General Surgery 34% (323/962). The most frequently encountered pathology in the General Surgery group was abscesses, 35% (122/322) followed by acute appendicitis 30% (96/322). Additionally, there was a drastic decline in the total number of admissions for the various subspecialties (excluding General Surgery) between the year 2020 and 2021. This trend was mainly due to decline Orthopaedic admissions.

**CONCLUSION:** This review highlights that the majority of admissions in the adolescent age group were due to Orthopaedic and General Surgical conditions.

### **CASE SERIES OF DELAYED DIAGNOSIS OF ANORECTAL ANOMALIES.**

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**OBJECTIVE:** To highlight the delayed presentation of anorectal malformations and its associated outcomes in our Paediatric Population.

**METHODS:** A retrospective review of all cases of anorectal anomalies diagnosed after postnatal examination and discharge for the period 2016-2020 was performed. All patients presented to The Paediatric Surgery Department at the Eric Williams Medical Sciences Complex.

**RESULTS:** Over the 5-year period a total of 4 cases were identified, of which 75%(3/4) were females who were also found to have recto-vestibular fistulae. All cases were diagnosed after 7 days of life (range 7-134 days). The majority of these cases (75%) underwent successful definitive reconstruction with posterior sagittal anorectoplasty. Postoperative complications included wound dehiscence in two cases one requiring simple repair and the other a diverting colostomy. Post repair neo-anus stenosis occurred in one case which resulted in delayed closure of diverting stoma. Other associated anomalies included a ventral septal defect which was discovered in one case.

**CONCLUSION:** The existence of delayed presentation of anorectal malformation is apparent despite modern day medical practice. The late diagnosis influences management and can be associated with increase adverse outcomes.

### **PATHWAY TO TISSUE TRANSPLANT LEGISLATION IN GUYANA**

*Persaud K*

*Guyana*

**AIM:** This discursive paper will update the College on legislation to allow for the expansion and regulation of tissue transplantation in Guyana. It is hoped that this will be a stepping stone toward regional integration for transplantation.

**METHODS:** Qualitative data, from existing legislations in the Caribbean and leading first world countries were collected and reviewed. There were consultations with local and international medical experts. The document was drafted and edited after which there were consultations with local and international legal experts. Thereafter, there were engagements with the Ministry of Health and Legal Affairs for approval in parliament.

**RESULTS:** After eight years (2014 - 2022) “The Guyana Human Tissue and Transplant Legislation” was first read in Guyana’s Parliament on 16<sup>th</sup> December 2021. It was debated and passed on 24<sup>th</sup> January 2022.

**CONCLUSIONS:** The Guyana Human Tissue and Transplant Legislation allows for the improvement of the overall standard of healthcare offered to the general population. It will also facilitate the regional integration of transplantation.

### **THE NATIONAL ORGAN TRANSPLANT UNIT OF TRINIDAD & TOBAGO: FIFTEEN YEARS**

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Renal Transplantation is the best and most cost-effective form of Renal Replacement Therapy RRT, for persons with End Stage Renal Disease ESRD. Over the past twenty-five years there has been a rapid increase in persons with ESRD requiring RRT in Trinidad & Tobago, with a resulting strain on Dialysis facilities and in many cases sub-optimal treatment. Recognizing this the Government of Trinidad & Tobago enacted the Human Tissue Act in the year 2000, leading to the establishment of the National Organ Transplant Unit NOTU in 2006, charged with providing Live Donor LD and Deceased Donor DD renal transplants to nationals of Trinidad & Tobago.

In the first fifteen years, 195 transplants have been performed: 149 LD; 46 DD. Ten paediatric cases performed. Two second transplants also performed in that period.

One year graft survival 98%; three-year graft survival 93%. Longest survivor is our first patient done January 2006. Fifty-two (52) recipients have died from various conditions, twenty-eight (28) have returned to dialysis due to graft failure. One (1) case of acute rejection leading to graft loss. One (1) case of primary non-function graft failure.

NOTU has shown that a successful transplant service can be established with good outcomes, offering ESRD patients another option for treatment.



## PAEDIATRIC LIVER TRANSPLANTATION IN JAMAICA

Abel C

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**OBJECTIVE:** To report the experience of establishing a liver transplantation service in the English-speaking West Indies.

**METHODS:** A retrospective study examining the need for liver transplantation in Jamaica and the outcomes.

**RESULTS:** Seven patients received living donor related liver transplantations. Of this, 6 patients are alive and doing well. One patient died 4 months post-operatively.

**CONCLUSION:** Liver Transplantation is a complex and expensive venture. The pre-existing infrastructure and multidisciplinary approach has shown that this procedure can be safely done in the West Indies.

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## **Scientific Session 10: Clinical Cases**

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### **A CLOSED-LOOP AUDIT ASSESSING THE USAGE OF THYROID SHIELD AMONG OPERATING ROOM PERSONNEL IN A MAJOR TRAUMA CENTRE**

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**OBJECTIVE:** Thyroid shields are important to prevent irradiation during fluoroscopic guided surgeries. Initial observation in the theatre revealed thyroid shields were underutilized especially among operating surgeons during fluoroscopic guided surgeries. This audit was organized to improve compliance with the usage of thyroid shields by operating room personnel.

**METHODS:** Non-consecutive 40 orthopaedic surgeries under fluoroscopic guidance were included for the first cycle of the audit. Operative room personnel were not aware of the study and the adherence to the usage of thyroid shield and their designation were collected.

**RESULTS:** The use of thyroid shields was highest among the radiographers (100%), followed by Orthopaedic trainees (82.5%), Nurses (77.5%), and medical officers (55%).

A health education program consisted was conducted on the adverse effects of ionizing radiation and the importance of adherence to the ALARA principles.

After the intervention, the adherence to the radiation safety measures improved drastically among Nurses (95%), Trainees (97.5%) and medical officers (87.5%).

**CONCLUSIONS:** Health education methods like PowerPoint presentations will improve the knowledge and practice about radiation protection among health care professionals.

## ASSESSMENT OF BURNOUT IN JUNIOR SURGICAL DOCTORS IN A TERTIARY HOSPITAL

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**OBJECTIVE:** To assess physician burnout in a surgical department at a tertiary institution in Trinidad and Tobago.

**METHODS:** An anonymous online questionnaire was administered over a two-week period, to junior surgical officers employed at a tertiary institution in Trinidad and Tobago. The Oldenburg Burnout Inventory was adapted for this study. The questionnaire established strata by demographics, years practicing medicine, volunteerism and divided burnout criteria into weighted disengagement and exhaustion categories. Burnout criteria were scored out of 32 for disengagement and exhaustion. A combined weighted total out of 64 was obtained, with higher numbers correlating with high levels of burnout.

**RESULTS:** Fifty-one respondents began the questionnaire and 45 (88%) completed all questions. Eighty-two officers were eligible, yielding a 62% response rate. Sixteen (36.6%) completed rotations in Covid-19 Parallel Healthcare Facilities and 33 (73.33%) completed rotations in the in-house Covid-19 Response Team. The weighted average across the cross-sectional data (n=45) was 45.71. Disengagement and exhaustion were high across all groups, with participants who completed rotations in both the Parallel Healthcare Facilities and the in-house Covid-19 Response Team (n=12) scoring highest with a weighted average of 48.25.

**CONCLUSIONS:** There appear to be high levels of burnout among surgical officers. Rotations involving treating patients with Covid-19 had a positive correlation with higher levels of burnout reported.

## CONTROLLED RUPTURE OF SEBACEOUS CYSTS

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**OBJECTIVE:** Sebaceous cyst excision is a common a minor surgical procedure done by both general practitioners and surgeons. Often, the cyst unintentionally ruptures obscuring the anatomy and making complete cyst excision difficult. This can result in recurrence. We propose a technique of controlled rupture ensuring a clean wound, easy dissection, good visualisation and decreased risk of recurrence.

**METHODS:** Local anaesthetic is first given below the cyst, allowing the fluid to buoy it upwards. It is then given over the cyst with the anaesthetic preceding the needle, facilitating dissection between the cyst and the skin. An elliptical incision, including the punctum, is made and the dissection is done downwards around the upper half of the cyst. The cyst is then incised near the skin edge and the contents pushed into gauze and cleared from the field. The incised area is sealed by an artery forceps. Dissection is completed and skin closed.

**RESULTS:** Fifteen sebaceous cysts were excised using this method. There were no complications and no recurrences. Average follow up time was 2 years.

**CONCLUSIONS:** This method is an easy technique for a common condition that can be adopted by both surgeons and family physicians (video).

## **LYMPHADENOPATHY DUE TO TATTOOS**

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**OBJECTIVE:** Lymphadenopathy is often associated with cancer or inflammatory conditions. We report a case of lymphadenopathy due to tattoo ink.

**METHODS:** A 32 year old white male presented with 2 firm, mobile supraclavicular lymph nodes that had not enlarged over the 3 week period since he first noticed them. He was very fit and had no comorbidities or family history of cancer. Five years earlier, he had extensive tattooing on his right shoulder and chest.

**RESULTS:** Excisional biopsy of the larger node was done and on gross inspection it was firm and dark. When cut, it revealed black pigment throughout. Histology confirmed paracortical deposits of black tattoo ink with no malignancy.

**CONCLUSIONS:** Tattooing has been documented as a cause of benign lymphadenopathy but is relatively rare. Malignant melanoma must be ruled out, but these specimens can also mimic the nodes dyed with methylene blue in sentinel lymph node biopsies in breast cancer. The heavy metals (iron, mercury, cadmium, cobalt and chromium) in tattoo ink can also make nodes radiopaque mimicking calcification. Malignancies arising from tattoos is exceedingly rare, but red tattoo ink has been reported in rat studies and case reports as a cause of skin cancer. Skin tattoos are increasingly common; awareness of this complication is useful.

## **A CHILDHOOD THORACOCERVICAL LYMPHATIC MALFORMATION.**

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**INTRODUCTION:** We present our rare tumour in the left neck and chest that was intimately related to the subclavian vessels and major nerves.

**CASE PRESENTATION:** A two-year-old girl presented with an enlarging left posterior triangle mass. Contrast-enhanced CT showed a mixed solid and cystic lesion extending from the left Cervical region posterior to the carotid sheath and compressing the trachea and oesophagus; through the thoracic inlet and into the posterior mediastinum. Surgical resection was performed by two incisions one in the left neck and the other via left thoracotomy. The tumour had both solid and cystic components and as many vital structures as possible were saved during resection.

**CONCLUSION:** Several treatment modalities exist for Lymphatic malformations, including watchful waiting, sclerotherapy, radiotherapy and surgical resection.

## **MICROPORE TAPE CLOSURE OF INFECTED SURGICAL WOUNDS**

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**OBJECTIVE:** Closing infected wounds is challenging. Secondary intention or delayed primary closure is used for infected wounds to prevent abscess formation, but they subsequently have prolonged healing. Early or even delayed suturing increases infection risks as it strangulates tissue and leaves foreign bodies in wounds. We have found that bringing the edges of wounds together with micropore tape shortens healing time. While Steri-Strips have been used for suture less closure, they are less adhesive, less commonly available and their width and length not as variable limiting their efficacy and the sizes of wounds they are used for.

**METHODS:** A new roll of 3M micropore tape was used to close wounds in 15 patients. Average follow up was 3 weeks.

**RESULTS:** Mean healing time was 18 days. There was no use of local anaesthesia, suturing or operating room visits. All dressing changes were done as outpatients.

**CONCLUSIONS:** Bringing the edges of wounds together increases the rate of healing while allowing the wound to be opened regularly to facilitate cleaning and to prevent abscess formation. Tape closure promotes the proliferative phase of wound healing and encourages contraction by myofibroblasts speeding up healing time for wounds that traditionally would be left to heal by secondary intention. This technique promoted faster wound healing and for particularly large defects proved to be an effective alternative to secondary intention or delayed primary intention closure. We recommend its adoption for more widespread use.

## **MASSIVE RECTAL HAEMORRHAGE**

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**OBJECTIVE:** In our population, the presentation of sudden, massive, life threatening rectal bleeding is most often caused by diverticular disease or angiodysplasia. Such patients in haemorrhagic shock with limited blood available are rushed to the operating theatre where a subtotal colectomy is performed as emergency colonoscopy is often unavailable. We present massive bleeding from a rectal ulcer with a history mimicking that of a diverticular bleed.

**METHODS:** A 48 year old man presented with progressively deteriorating neurologic function with constipation. He had massive rectal bleeding and developed haemorrhagic shock within 20 hours. He was resuscitated and a total colectomy planned.

**RESULTS:** Emergency colonoscopy was done and a bleeding stercoral ulcer was identified. Haemostasis was achieved with epinephrine injections and haemostatic clips; he was surgically discharged once stable. Eight days later, his bleeding recurred. After resuscitation, under general anaesthesia, trans-anal oversewing of the ulcer achieved effective haemostasis.

**CONCLUSIONS:** Stercoral ulcers are rare, but in patients with long-standing constipation who present with massive rectal bleed, a colonoscopy to rule out these lesions is useful in ensuring that the traditionally appropriate management of subtotal colectomy for massive rectal bleed is not performed inappropriately. Suspicion of this condition, especially in the constipated patient, could avoid inappropriate surgery.

# BULLETIN



## Caribbean College of Surgeons Congratulate Surgeons Completing Advanced Fellowships in the Caribbean

The Caribbean College of Surgeons extends  
our congratulations to:

*Natacha Paquette*

*Fawwaz Mohammed*

*Greg Padmore*

*Don Major*

*Ammiel Arra*

*Vantario Taylor*



**CHENNAI 2022**

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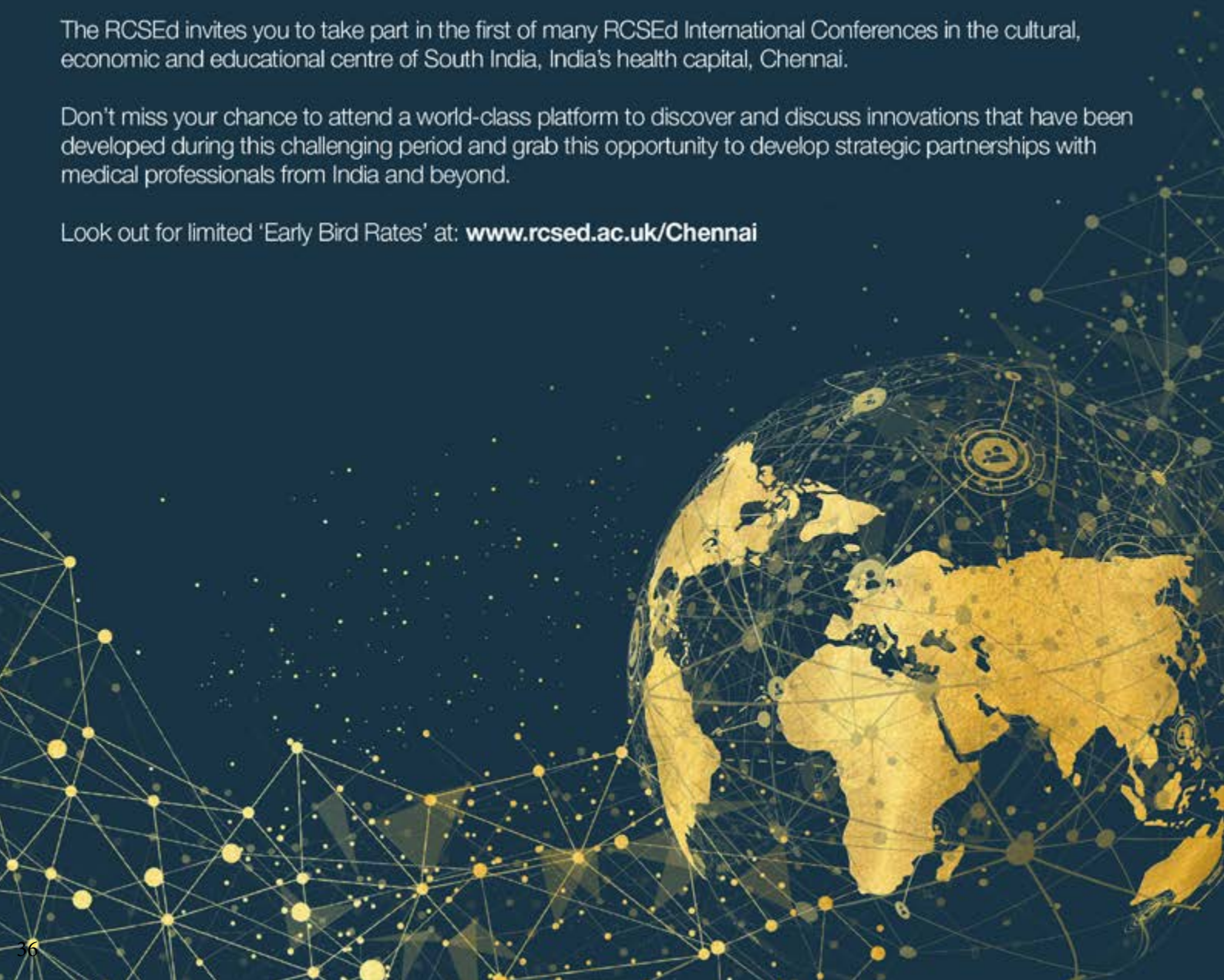
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