

## Posters

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### (P – 1)

#### Exploring the usefulness of cognitive behavioural therapy in the treatment of bowel problems

*V De-petro*

*Department of Digestive Diseases, Aintree University Hospital, Liverpool, United Kingdom*

E-mail: [vicky.depetro@merseycare.nhs.uk](mailto:vicky.depetro@merseycare.nhs.uk)

**Objective:** Cognitive behavioural therapy (CBT) refers to the combination of cognitive and behavioural treatment modalities, commonly used in a range of psychological conditions. Its application in the management of bowel disorders has increased but with limited published outcome data. The aim of this intervention is to provide psychological support to patients who are undergoing treatment for bowel disorders, addressing levels of anxiety, depression and distress caused by physical illness.

**Subjects and Methods:** Forty-one female and two male patients have so far received an initial consultation, 20 of whom have received and completed a course of CBT. Patients were asked to complete two questionnaires pre and post therapy. The Hospital Anxiety and Depression Scale (HADS) was utilized to identify clinical levels of anxiety and depression, along with the General Health Questionnaire (GHQ – 28) to measure distress caused by physical illness.

**Results:** Results indicate that differences in mean scores before and after CBT were noticeable; for anxiety, 12.33 (before) to 6.78 (after) and for depression, 9.27 (before) to 4.78 (after). This represents a change from clinical levels of distress to non-clinical levels. However, the small sample size makes analysis cautious. Minimal differences were observed in distress related to illness, however, given that means and standard deviations were very similar (distress before, mean = 4.94, SD = 4.65). There was a high spread of results, thus observing the mean may not be useful. This is similar for distress scores after (mean 4.61, SD = 4.19). Further analysis would be helpful on all data, to determine if there was statistically significant change.

**Conclusion:** It would be interesting to collect more data and code them in a way which would be useful for research to investigate. Initial tests show there may be evidence of change before and after therapy, and tests of statistical significance would show whether this was meaningful and generalizable to the population.

### (P – 2)

#### Clinical profile of pituitary tumours in Jamaica

*N McLennon, IW Crandon, SO Cawich, HE Harding*

*Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica*

E-mail: [nowwie@yahoo.com](mailto:nowwie@yahoo.com)

**Introduction:** Pituitary tumours account for approximately 10–15% of primary brain tumours worldwide. Clinicians should be familiar with the modes of presentation since favourable outcomes depend on an early diagnosis.

**Methods:** We performed a retrospective analysis of hospital records of all patients with pituitary tumours over 15 years. The information collected included patient demographics, duration of symptoms, clinical features, visual field testing and hormone assays. Data were analysed using SPSS version 12.0.

**Results:** Pituitary tumours were present in 119 patients. There were 73 females and 46 males who presented with a mean age of 45.4 years (SD  $\pm$  14.8, range 10–79, median 45, mode 45). Non-functional tumours were present in 55% of patients with a mean age of 50.8 years (SD  $\pm$  13.4, median 51, mode 63) while patients with hormonally active tumours presented earlier with a mean of 39.2 years (SD  $\pm$  13.9, median 38, mode 45). Visual disturbances were present in 80.7% of patients with hormonally inactive tumours, and included field deficits (79.1%) and abnormal acuity (92.5%). The other presentations included non-specific headaches (72.3%), cranial nerve palsies (16%) and pituitary apoplexy (5%). The commoner endocrine features included hyperprolactinaemia (24.4%), amenorrhoea (21.9%), hypothyroidism (7.6%), acromegaly (5.9%), Cushing's disease (4.2%) and hyperthyroidism (0.8%).

**Conclusions:** Most patients present relatively late because the majority of tumours are hormonally inactive. Visual disturbances, headaches and symptoms of hyperprolactinaemia are common presenting complaints. Heightened clinical vigilance and early investigation in patients with suggestive clinical features will allow early detection of this disorder.

**(P – 3)**

**Infection control practice in the operating room: staff compliance with existing policies in a developing country**

*SO Cawich, I Tennant, CD McGaw, HE Harding, CA Walters, IW Crandon*

*Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica*

E-mail: socawich@hotmail.com

**Aim:** To evaluate operating room (OR) staff compliance with existing infection control policies in Jamaica.

**Subjects and Methods:** We carried out a questionnaire study to interview all OR staff on their training, knowledge of local infection control protocols and practice as it related to eight randomly selected guidelines. Compliance with each guideline was graded using fixed-choice items in a four-point Likert scale. The sum of total grade points determined the compliance score. Two respondent groups were defined: compliant (scores > 26) and non-compliant (score ≤ 26). We evaluated the relationship between respondent groups and age, gender, occupational rank and time since graduation from first medical degree. Chi-squared and Fisher's exact tests were used to assess associations as well as *t*-tests used to compare means between variables of interest.

**Results:** There were 132 participants (90 physicians, 42 nurses) with a mean age of  $36 \pm 9.5$  years. Overall, 40.1% were compliant with existing protocols. There was no significant association between the distribution of compliance scores and gender ( $p = 0.319$ ), time since graduation from basic training ( $p = 0.595$ ), occupational rank ( $p = 0.461$ ) or age ( $p = 0.949$ ). Overall, 19% felt their knowledge of infection control practice was inadequate. Those with working knowledge of infection control practice attained this mostly through informal communication (80.4%) and self-directed research (62.6%).

**Conclusions:** Despite the proven efficacy of infection control practices in controlling healthcare associated infections, only 40% of OR staff is compliant with these protocols.

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**Epidemiology of diabetic foot infections in an eastern Caribbean population: a prospective study**

*S Islam<sup>1</sup>, P Harnarayan<sup>1</sup>, SO Cawich<sup>2</sup>, S Budhooram<sup>1</sup>, V Bheem<sup>1</sup>, V Mahabir<sup>1</sup>, S Ramsewak<sup>1</sup>, I Aziz<sup>1</sup>, V Naraynsingh<sup>1</sup>*

*<sup>1</sup>Department of Clinical Surgical Sciences, The University of the West Indies, St Augustine, Trinidad and Tobago, and*

*<sup>2</sup>Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica*

E-mail: sssl201198@yahoo.com

**Aim:** This study evaluates the epidemiology of diabetic foot infections in a Caribbean population in order to direct public health preventative measures.

**Subjects and Methods:** We prospectively identified all patients with diabetic foot infections admitted to tertiary care hospitals across Trinidad and Tobago from July 2011 to June 2012. A questionnaire was used to collect data on demographics, patient knowledge, avoidance of risk factors for chronic diseases (as a proxy to unhealthy lifestyles) and glycosylated haemoglobin (GHb) measurements on admission as an index of glucose control. The data were analysed with SPSS version 12.0.

**Results:** There were 446 patients with diabetic foot infections with a mean age of  $56.9 \pm 12.4$  years. There were pre-existent complications of diabetes in 82.9% of patients with Type 2 diabetes: hospitalized for foot infections (70.2%), ischaemic heart disease (32.5%), renal impairment (13.7%) and retinopathy (22.1%). Despite most patients claiming compliance with treatment, 75% had GHb > 7.1% at presentation and 49.3% continued with unhealthy lifestyles. Despite the high prevalence of complications of diabetes at the time of admission, and despite 70% having had previous hospitalization for foot infections, only 57.4% patients reported ever being counselled/taught about foot care by medical personnel.

**Conclusions:** There is room for improvement in this setting in public health strategies to prevent diabetic foot complications. They should focus on patient education with emphasis on lifestyle modification and compliance with medical therapy.

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**Extremity injuries from motorcycle road traffic accidents: the experience from a tertiary referral hospital in Jamaica**

*SO Cawich, REC Rose, HE Harding, M Isaacs, IW Crandon*

*Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica*

E-mail: [socawich@hotmail.com](mailto:socawich@hotmail.com)

**Objectives:** There is little data available on the prevalence of extremity injuries from motorcycle accidents in Jamaica. We performed a descriptive, analytical study to evaluate the injury profiles from motorcycle accidents in a tertiary referral hospital in Jamaica.

**Design and Methods:** Over seven years of demographic and clinical data on all motorcycle accident victims admitted to the University Hospital of the West Indies with extremity injuries were collected in a prospective database. The data were analysed using SPSS version 12.0.

**Results:** Of 270 motorcycle accident victims, there were 257 (95.2%) males and 13 (4.8%) females. The commoner extremity injuries were: soft tissue trauma 270 (100%), limb fractures 198 (73.4%), muscle 65 (24.1%) and vascular 9 (3.3%). Associated injuries involved the head 143 (53.0%), abdomen 38 (14.1%) and thoracic viscera 71 (26.3%). The mean injury severity score was 9.0 (SD 9.4, median 8, mode 4). There were 195 patients needing surgical intervention in the form of orthopaedic operations (94), neurosurgical operations (43), abdominal operations (49) and vascular operations (14). The mean duration of hospitalization was 10 days (SD 11.2, range 0–115, median 6, mode 3). There were 12 (4.4%) deaths, 9 (75%) due to traumatic brain injuries. Fatal injuries were commoner in males (11) and un-helmeted patients (10).

**Conclusions:** Motorcycle accident victims place an additional burden on emergency surgical services. Educational intervention strategies and legislative policies are needed to minimize the impact of these preventable injuries on the limited resources of the health services.

**(P – 6)**

**Shoulder arthroscopy for recurrent anterior shoulder dislocation in Jamaica**

*A Ameerally, W Palmer*

*Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica*

E-mail: [ameerally@hotmail.com](mailto:ameerally@hotmail.com)

**Objective:** To assess the patient outcome after arthroscopic Bankart repair for recurrent anterior shoulder dislocation

performed by a sport medicine and arthroscopy service at the University Hospital of the West Indies.

**Methods:** A retrospective analysis of the patients who underwent elective Bankart repair for recurrent anterior shoulder dislocation from January 1, 2008 to December 31, 2011 was performed. Consent from the patients was obtained and the Oxford Shoulder Instability Questionnaire was completed by those patients who gave permission to participate in the study. The age, gender, complications and outcomes of patients were examined.

**Results:** A total of 11 patients were identified that had a Bankart repair performed for recurrent anterior shoulder dislocation. Nine patients enrolled in the study, of which five patients had arthroscopic Bankart repair performed and four had open repair. The average age was 19 years, with a male to female ratio of 4:1. One (20%) patient in the arthroscopic group had postoperative instability requiring a second operation. The Oxford Instability outcomes were excellent for all of the patients in the arthroscopic group after a minimum of one year follow-up.

**Conclusions:** The outcome for arthroscopic Bankart repair is excellent. The recurrence rate is high when compared to the international literature, but it remains a superb surgical option.

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**Closure of rectourethral fistulas using a combined abdominal and posterior sagittal approach**

*MV Vincent, ND Duncan*

*Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica*

E-mail: [michvincent@yahoo.com](mailto:michvincent@yahoo.com)

**Objective:** To report on the successful repair of an iatrogenic post Swenson's pull through rectourethral fistula, using a recently described procedure utilizing a combined abdominal and posterior sagittal approach (CAPS).

**Methods:** An eight-year old boy with confirmed Hirschsprung's disease (HD) developed a rectourethral fistula (RUF) following Swenson's pull through for HD. The fistula recurred after omental patch onlay closure done *via* an anterior abdominal approach. Subsequent closure using CAPS was successful.

**Results:** Following closure of the fistula using the CAPS approach there has been no recurrence at nine months follow-up. To our knowledge this is only the fourth successful report on the use of the CAPS approach to closure of a RUF in a child with HD. Its use may be appropriate for closure of RUFs secondary to other pathologies, for example Crohn's disease.

**Conclusion:** The CAPS approach to the closure of RUFs offers improved fistula visibility for closure, avoids tedious pelvic dissection and is associated with a markedly reduced

risk of fistula recurrence when compared to an abdominal approach. In children whose fistula developed as a complication of a pull-through procedure for HD, fistula visualization is not mandatory because of the presence of the rectal sleeve brought down during the redo pull-through procedure.

#### (P – 8)

##### **Management outcomes of facial nerve tumours: comparative outcomes with observation, CyberKnife and surgical management**

*GA Channer<sup>1</sup>, B Herman<sup>2</sup>, FF Telischi<sup>3</sup>, D Zeitler<sup>1</sup>, SI Angeli<sup>1</sup>*

<sup>1</sup>Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica, <sup>2</sup>Department of Otolaryngology, University of Miami Miller School of Medicine, Florida and <sup>3</sup>Neurological Surgery and Biomedical Engineering, University of Miami, Florida, United States of America  
E-mail: [guyan\\_channer@yahoo.com](mailto:guyan_channer@yahoo.com)

**Objectives:** Primary facial nerve tumours (FNTs) present in varying ways. In this study, the authors present their institutional experience with the management of facial nerve tumours, including their recommendations for available therapies such as observation, microsurgical decompression or removal and stereotactic radiation. They emphasize the auditory and facial nerve function outcomes.

**Design:** A retrospective review of all cases of FNT seen at a tertiary care academic medical centre over a 10-year period (2002–2011) was conducted. The clinical presentation, treatment modality and outcome parameters of cochlear and facial nerve function were assessed.

**Results:** Twelve patients were identified. House-Brackmann grades on presentation were four grade I, two grade II, two grade III, one grade IV, and three grade V, with two grade V patients declining to grade VI shortly after presentation. Seven patients presented with serviceable hearing and four with non-serviceable hearing. Treatment options/arms included observation with serial clinicoradiological review (two cases), stereotactic radiation with the CyberKnife (three cases), wide fallopian canal decompression (three cases), microsurgical excision and repair (three cases) and biopsy followed by observation (one case). At the end of the review period, facial nerve function was stable in eight patients, improved in three, and declined in one; none had documented worsening of hearing based on American Academy of Otolaryngology-Head and Neck Surgery Foundation classification.

**Conclusions:** Management of FNT is largely based on the clinicoradiological picture. Each treatment arm is different, but overall auditory and facial function can be maintained.

#### (P – 9)

##### **A rare visceral artery aneurysm as a red herring**

*R Maharaj, E Renaud, V Bandoo*  
Department of Surgery, Eric Williams Medical Sciences Complex, Mt Hope, Trinidad and Tobago  
E-mail: [elren82@yahoo.com](mailto:elren82@yahoo.com)

**Objective:** To explore patient and resource challenges in identifying visceral aneurysms, as aneurysms are usually asymptomatic, presenting as a red herring in the management of other abdominal pathology.

**Methods:** A case is used to emphasize how visceral artery aneurysms in our setting can be easily overlooked when investigating for pancreatic head pathology. A 66-year old male, hypertensive and chronic alcoholic, presented with a two-month history of obstructive jaundice, anaemia, weight loss and hematemesis. Initially referred for further management of a pancreatic head mass, instead a 4 cm expansile, pulsatile mass was palpated just distal to the right subcostal margin and a bruit heard. Computed tomography scan revealed a saccular aneurysm arising from a branch of the common hepatic artery, free fluid in the epigastrium, pericholecystic region and Morrison's pouch with no evidence of a pancreatic head mass.

**Results:** The patient defaulted from follow-up, got progressively worse as sepsis ensued and unfortunately, succumbed to his condition. Post mortem revealed a fatty liver, ascites, purulent peritonitis and a perforated ulcer at the first part of the duodenum. We have acknowledged, in view of the literature, that selective angiography of the celiac axis and superior mesenteric artery is now the gold standard for confirming the diagnosis of visceral artery aneurysms and identifying specific vascular anatomy for corrective surgery.

**Conclusion:** The diagnosis of visceral artery aneurysms is often stumbled upon and prompt treatment, once recognized, can prevent fatal consequences. Additionally, challenges include lack of qualified specialists for appropriate treatment in a timely fashion, suitable facilities and adequate funding. To decrease the frequency of this red herring, we also suggest consideration of hepatic artery aneurysm in the differential diagnosis of pancreatic head masses.

#### (P – 10)

##### **Sublabial parasseptal trans-sphenoidal approach to excise pituitary tumours at the University Hospital of the West Indies, Jamaica**

*N McLennon, IW Crandon, SO Cawich, HE Harding*  
Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica  
E-mail: [nowwie@yahoo.com](mailto:nowwie@yahoo.com)



**Objectives:** We sought to document the therapeutic outcomes after trans-sphenoidal resection of pituitary tumours using the sublabial paraseptal approach at the University Hospital of the West Indies.

**Methods:** A cross-sectional analytical study using data collected from the hospital records of all patients who had sublabial paraseptal trans-sphenoidal (SPTS) hypophysectomy over 15 years was undertaken. The data were analysed using SPSS version 12.

**Results:** There were 119 SPTS hypophysectomies performed over the study period. There were 73 (61.3%) females and 46 (38.7%) males, with a mean age of 45.4 years (SD  $\pm$  14.8, range 10–79, median 45, mode 45). These patients presented with visual disturbances (80.7%), non-specific headaches (72.3%), amenorrhoea (21.9%), galactorrhoea (19.3%), cranial nerve palsies (16%) and pituitary apoplexy (5%). Visual failure (80.7%) and endocrinopathies (44.5%) were the main indications for surgery. The operation resulted in adequate resection in 95% of cases, with endocrine cure in 69% and subjective improvement in vision in 41.8% patients. The commoner postoperative complications were transient cerebrospinal fluid leaks (5%), with only one (0.8%) requiring lumbar drainage, transient diabetes insipidus (10.9%) and permanent diabetes insipidus (0.8%). There was tumour recurrence in 23 (19.3%) patients, nine of them requiring postoperative radiotherapy. There were no surgical deaths.

**Conclusions:** The SPTS approach to pituitary tumours is a safe and effective treatment option in this setting. Heightened clinical vigilance, opportunities for earlier investigation and wider availability of adjunctive pharmacotherapy may improve the results of treatment of this disorder.

#### (P – 11)

##### **Paget's disease of the breast: is a mastectomy still the recommended treatment of choice?**

*A Josephs<sup>1</sup>, L Simpson<sup>2</sup>, R Aitken<sup>2</sup>, SO Cawich<sup>1</sup>*

*<sup>1</sup>Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston and <sup>2</sup>Department of Surgery, Kingston Public Hospital, Kingston, Jamaica*

*E-mail: drajosephs@yahoo.com*

**Objective:** To review the current literature to determine whether a mastectomy represents the best oncologic surgical treatment for Paget's breast disease.

**Case Report:** The unusual case of mammary Paget's disease in a 26-year old female is presented and the available surgical and adjuvant options for therapy will be discussed, as well as a literature review of current management practices done. Paget's disease is an uncommon malignancy which affects the nipple areola complex in 1–3% of women with carcinoma of the breast in the United States of

America, with a peak incidence in the sixth and seventh decade of life. While the theories of the aetiology of the characteristic malignant cells remain unproven, the common association with a separate underlying malignancy, as described by Sir James Paget in 1874, has remained unchanged. The diagnosis is often delayed due to a low index of suspicion on the part of the patient and the clinician alike, with the assumption of a more benign differential diagnosis. Over 90% of patients with mammary Paget's have an associated breast cancer and a full oncologic workup including the use of breast imaging in combination with pathologic confirmation is indicated. The management of these patients has evolved from mandatory mastectomy to encompass breast conserving surgery in selected cases.

#### (P – 12)

##### **Intra-luminal migration: a rare complication of choledochoduodenostomy**

*JA Dominguez-Eljaiek*

*St George's University School of Medicine, St George, Grenada*

*E-mail: eljaiek@spiceisle.com*

**Introduction:** Endoscopic treatment of choledocholithiasis is not routinely available in most hospitals in the Caribbean setting. In order to avoid structuring in the common bile duct after operative stone extraction, the duct may be closed over a T-tube or a choledochoduodenostomy may be performed to avoid the usage of external drains.

**Case Report:** A 44-year old female presented emergently with acute calculous cholecystitis and required emergent cholecystectomy. The common bile duct was explored due to a suspicion of choledocholithiasis and the duct closed over a T-tube. After a T-tube cholangiogram revealed residual stones, repeat common duct exploration was performed followed by a side-to-side choledochoduodenostomy using 4/0 prolene and a closed drain at the gallbladder bed. After several attempts at failed drain clamping, a fluoroscopic study was performed with contrast introduced into the drain. This suggested that there was intra-luminal drain migration into the duodenum. Endoscopy confirmed the diagnosis. Once the fistula matured, the drain was removed and the patient settled.

**Conclusion:** The surgeon performing choledochoduodenostomy should be aware of the uncommon complications of this operation in order to effectively address the problem should it arise.

**(P – 13)**

**Umbilical hernia repair in Jamaican children**

*C Abel, N McLennon, A Stanley*

*Bustamante Hospital for Children, Kingston, Jamaica,  
West Indies*

E-mail: [nowwie@yahoo.com](mailto:nowwie@yahoo.com)

**Objective:** To document the incidence of elective and emergency umbilical hernia repair in Jamaican children presenting to the Bustamante Hospital for Children.

**Methods:** A retrospective analysis, the largest of its kind found in the English literature, was done using the operating theatre and medical records extending over a two-year period from January 2011 to December 2012. A total of 776 patients fulfilled the inclusion criteria.

**Results:** The ages of the patients ranged from seven months to 12 years old. Of the 776 patients identified for inclusion, the sex of 715 was determined from the available records. There were 350 males (49%) and 365 (51%) females. The number of emergency cases totalled six over the two-year period (0.77%).

**Conclusions:** Paediatric patients with umbilical hernia presented to the Bustamante Hospital for Children with a male to female ratio 1:1. Umbilical herniorrhaphy is most commonly performed electively and less than one per cent of cases presented emergently.

**(P – 14)**

**Breast cancer: evaluating management protocols in Caribbean countries with evolving healthcare delivery systems**

*JA Dominguez-Eljaiek*

*St George's University School of Medicine, St George,  
Grenada*

E-mail: [eljaiek@spiceisle.com](mailto:eljaiek@spiceisle.com)

**Objective:** Many developing nations in the Caribbean have evolving healthcare systems that may limit the effective delivery of surgical services. We evaluated the management of patients diagnosed with breast cancer in one such developing nation.

**Methods:** This is a descriptive analysis of the current management protocols for breast cancer in Grenada. We review management pitfalls in an attempt to identify strategies for improvement.

**Results:** A 10-year retrospective study was performed to evaluate patients with confirmed diagnoses of breast cancer. Key instructive cases are discussed. The pitfalls identified are insufficient reliance on clinical examination findings, inappropriate use of investigations and delays in referral to specialist surgical services.

**Conclusion:** There are several pitfalls in breast cancer care in this setting. To overcome these barriers we suggest the following strategies: private-public partnership for breast cancer screening, increased educational campaigns on early diagnosis for patients and primary care providers, ministry of health-led formulation of diagnostic protocols and early referral to specialist services.

# Notes