Medicine and Surgery

Chairs: M Lee and J Williams-Johnson

(O – 05)

Evaluating the clinical outcomes following the use of superficial radiotherapy *versus* steroid injection after surgical excision in the management of keloids at the University Hospital of the West Indies

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Objective: A keloid scar is defined as a dermal lesion that spreads beyond the margin of the original wound and does not regress spontaneously, commonly recurring following excision. Keloids may develop as consequence to trauma and can be quite disfiguring causing psychological and emotional instability. They are often resistant to treatment and have high recurrence rates. There are several available treatment options. Data suggest that the use of superficial radiation following surgical excision has the lowest recurrence rate. The aim of this study was to evaluate the clinical outcomes following the use of superficial radiotherapy *versus* steroid injection after surgical excision in the management of keloids at our institution.
Method: We retrospectively analysed the records of 72 patients with resected keloids followed by adjuvant therapy over a 10 years period. This was supplemented with telephone interviews for those whose follow-up data were not available. Primary outcome was recurrence rate. Secondary outcomes where improvement in colour of scar and patient's satisfaction.
Results: Our studies revealed that the majority of the patients were females with a mean age range of 21–30. All keloids were surgically excised, followed by 82.9% receiving adjuvant steroid injection while 18.1% received adjuvant superficial radiation. Eight per cent of patients had a recurrence. All recurrences occurred within the first year following excision. Eleven per cent of patient had itching to their wound and the vast majority of patients were satisfied or very satisfied with the outcome of their treatment.
Conclusion: Our study had a fairly low recurrence rate with the majority of patients being satisfied with the outcome of their treatment following surgical excision and adjuvant treatment.

(O – 06)

Computed tomography evaluation of C2 anatomy for feasibility of transpedicular screw placement in a Jamaican population

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Objective: The study was undertaken to assess the various anatomical measurements of C2 vertebra in a Jamaican population, to determine the adequacy of the pedicles at C2 for screw placement and to compare the measurements with those in the published literature.
Method: Computed tomography (CT) scans of the cervical spine done at the University Hospital of the West Indies, Jamaica between January 2017 to July 2017 were assessed. Various measurements, including the smallest inner diameters of the pedicles were acquired. An internal diameter of 3.5 mm was used as the cut-off for adequacy for screw placement. Statistical analysis was done using SPSS.
Results: Seventy patients, 39 male (55.7%) and 31 females (44.3%) were included in the study. The mean internal diameter of the right pedicle was 2.9 mm in males and 2.4 mm in females ($p < 0.05$) and the mean internal diameter of the left pedicle was 3.3 mm in males and 2.9 mm in females ($p = 0.1$). The right pedicular angle measured 32.1° in males and 33.8° in females ($p = 0.06$) and the left pedicular angle measures 32.7° in males and 34.7° in females (p 65% of patients were not candidates for left sided pedicular screw placement. The internal diameters of the pedicles in our population were generally smaller than those in other populations.
Conclusions: A significant percentage of individuals within the study population have pedicles which are unsuitable for screw placement.

(O – 07)

Factors affecting blood loss associated in patients undergoing lower segment Caesarean section

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Background: Postpartum haemorrhage (PPH) following lower segment Caesarean section (LSCS) is a major cause of maternal morbidity and mortality worldwide. Accurately predicting high-risk patients will allow for better planning to reduce blood loss.
Methods: This was a multi-centre, prospective, observational study conducted at the University Hospital of the West Indies, Victoria Jubilee Hospital and Spanish Town Hospital. Data was collected on a total of 169 patients at the three hospitals. Both elective and emergency LSCSs were included. Data on maternal, surgical and anaesthetic factors were collected. Blood loss was determined using a standardised visually estimated blood loss (VEBL). The prevalence of PPH was calculated and the association with the collected parameters was calculated.
Results: Mean VEBL in the study population was 627 cc (± 443 cc). Only 6.5% (11) patients had a blood loss > 1500 cc (PPH). There was no significant difference in VEBL across the three hospitals. Several factors were associated with increased blood loss; age (> 35 years), parity (≥ 2), number of pregnancies (> 1), duration of surgery (> 44 minutes), placenta location (anterior) and type of anaesthesia (general).
Conclusion: Several factors are associated with increased risk of blood loss during LSCS. Screening for high-risk patients can allow for intervention to reduce blood loss in some cases.

(O – 08)

Evaluating the possible βeta-2 adrenergic effect of hexane, ethyl acetate and methanol extracts of *plectranthus amboinicus* on acetylcholine induced contractions in tracheal smooth muscle in the presence of propranolol

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Background: Folklore claims in Jamaica have suggested that *Plectranthus amboinicus* (*P amboinicus*) is useful in improving breathing during asthma attacks. This study investigated the effect of crude *P amboinicus* extracts on ACh induced contractions in the presence of propranolol. This was used to determine if the extracts possessed βeta-2 adrenergic activity since this receptor is the main target for therapy during asthmatic attacks.
Method: Relaxant effects of cumulative additions of dimethyl sulfoxide (DMSO), salbutamol, hexane, ethyl acetate and methanol extracts were tested against isolated guinea pig tracheal strips precontracted with ACh in the presence and absence of propranolol. Preliminary phytochemical tests for flavonoids, tannins, alkaloids, saponins and terpenoids were performed on the bioactive extract.
Results: The hexane extract produced a relaxant effect at the highest dose in the presence and absence of propranolol on the precontracted tissue. The relaxant effect was not significantly different from salbutamol in the presence of propranolol which suggests the extract may have β-2 receptor mediated activity on the tracheal epithelium. Tannins and alkaloids were present in the crude hexane extract.
Conclusion: The relaxant effect of the hexane extract was similar to that of salbutamol suggesting it could possibly act on βeta-2 adrenoceptors to induce relaxation. It is likely, however, that relaxation was due to multiple mechanisms since the extract is heterogenous. This relaxant effect could justify the use of *P amboinicus* in treating asthma attacks. Alkaloids are more likely to act by relaxing smooth muscle and therefore, require further investigation to isolate the compounds that mediate relaxation.

(O – 09)

Symptomatic pulmonary embolism in patients with deep vein thrombosis at the University Hospital of the West Indies

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Objective: The aim of this study is to determine 1. the percentage of patients with deep vein thrombosis (DVT) who also had symptomatic pulmonary embolism (PE). 2. the statistical associations between the presence of symptomatic PE and patient's age and gender and having a diagnosis of infection or malignancy.
Method: Data were obtained from discharge diagnoses of the Medical Library of the University Hospital of the West Indies. All patients who were diagnosed with DVT or DVT and PE during the period January 2001 and December 2010 were included in the study.
Results: Eight hundred and seventeen patients, 540 females and 277 males were included in the study. Six hundred and seventy-nine patients, mean age 56.0 years, had DVT only; 138 patients (17%), mean age 60.3 years, had DVT and PE. The difference in the means was significant $p = 0.01$. There

was a statistically significant difference in having a diagnosis of infection $\{X^2 (1, n = 715) = 4.81\ p = 0.03\}$ between the two groups but not in gender $\{X^2 (1, n = 817) = 0.262, p = 0.6\}$, or a diagnosis of malignancy $\{X^2 (1, n = 727) = 0.36\ p = 0.55\}$

Conclusions: Seventeen per cent of patients with deep vein thrombosis had symptomatic pulmonary embolism. Symptomatic PE in patients with DVT is significantly associated with being older and having a diagnosis of infection but not with gender or having a diagnosis of malignancy.