

Aim: To explore the vascular patterns of the branches distal to the common palmar digital arteries.

Method: The study was carried out on the radial and ulnar margins of 12 fingers from 3 cadaveric hands. The dissection was done under 6.5- 10x magnification using a surgical microscope. The hands were pre-injected with latex.

Results: Similar pattern was identified in the number, anastomoses and size of the branches. The cutaneous and palmar plate branches were variably placed along each source vessel. The transverse palmar arches are not always visible; this might affect the success rate of some reverse island flaps since they depend on the reverse flow from these arches. The arteries (including the radial indicis artery) were closer to the anterior surface of each finger than previously described. Incisions that are used to harvest common flaps may affect the delicate branches to flexor sheath.

Conclusion: An understanding of the branching patterns of the proper palmar digital arteries is useful in determining the degree of vascular risk accompanied commonly performed procedures i.e. tendon injuries and finger tips reconstruction. The descriptions produced may improve pre-operative planning and facilitate more accurate assessment of poorly vascularised repairs.

0837 INDEPENDENT TREATMENT CENTRES CAN BE UTILISED TO FACILITATE EARLY DISCHARGE IN THE CONTEXT OF ONE-STOP RAPID ACCESS COLORECTAL CLINICS

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Aim: The aim of this pilot study was to evaluate the benefit of running one-stop clinics in conjunction with an Independent Treatment Centre (ITC) in the diagnosing and management of colorectal cancers.

Method: We reviewed the clinic letters of all patients referred to a two week wait (2WW) clinic, comparing those who were seen in the one-stop clinic in collaboration with an ITC with those seen in the standard NHS clinic.

Results: Of 99 patients, 45(45%) were seen in the ITC clinic, 43 of whom had a flexible sigmoidoscopy (FS) on the same day. 8(18%) were referred for colonoscopy and 13(29%) for further imaging. 27(60%) were found to have no significant pathology and were discharged that day. 54/99(54%) were seen at the standard clinic with a separate endoscopy appointment. Only 3(6%) of these patients were discharged the same day, with 34(63%) referred for colonoscopy, 6(11%) for FS, 19(35%) further imaging, and 2(4%) for surgery.

Conclusion: This pilot study showed that a well-organised one stop service can be provided by a rapid access clinic in collaboration with an ITC. Subsequently, all 2WW patients are being seen in the ITC and we will continue to report on their outcomes.

0839 DEVELOPMENT OF CONSENSUS-BASED GUIDELINES FOR ACUTE LIMB ISCHAEMIA – A REGIONAL AUDIT COLLABORATION

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Aims: The authors aim was to determine the current management of acute limb ischaemia in the Severn Deanery and compare against available international guidelines in order to develop consensus-based guidelines.

Methods: Initial patient data collection began at a Trust level and included all patients presenting with acute limb ischaemia. Details of patient's presenting features, along with timing to vascular review and management, including anti-coagulation were included. Data was collected using the Survey-Monkey database and smart-phones. The audit was distributed regionally via the Severn and Peninsula Audit and Research Collaborative for Surgeons (SPARCS).

Results: Trust level data collection revealed discrepancy between patient's initial management. Inconsistencies were discovered between time to vascular review and instigation of initial treatment. Initial management included decision to image and treatment with anticoagulation. At time of audit no local Trust protocols were available in managing patients with acute limb ischaemia.

Conclusions: Significant inconsistencies were identified in the initial management of acute limb ischaemia. A major reason for this is the lack of

internationally recognised evidence-based guidelines. Consensus-based guidelines have been developed in order to aid in the management of acute limb ischaemia. These are being implemented across Trusts as part of an ongoing quality improvement project.

0842 AN INTELLIGENT REFERRAL CO-ORDINATION SERVICE COMBINED WITH ADVICE AND FOCUSED EDUCATION IN PRIMARY CARE IS CURRENTLY NECESSARY TO SAFEGUARD REFERRAL QUALITY

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Aims: Patient referral from primary to secondary care varies in quality can often be directed to the wrong subspecialty. Could a regional intelligent referral co-ordination service (RCS) providing focussed education efficiently improve the precision of referrals, assist GPs in preventing unnecessary referrals and benefit patient care?

Methods: A prospective pilot study of a regional referral co-ordination service requiring collaboration between the PCT, primary care and two DGH's. All gastrointestinal (upper+lower GI/liver/biliary), vascular and general surgical referrals over 30 weeks were reviewed by single clinician. Referral appropriateness, urgency, designated specialty and requested service was assessed. Advice, education including optional open-dialog was provided for sub-optimal referrals. Referrals were adjusted or postponed at this point.

Results: 1,221 patient referrals were assessed. 42%(510) required adjusting. Of these; 75%(385) were adjusted and processed with focussed education, 15%(74) led to treatment advice thereby avoiding referral, 10%(51) required discussion before establishing patient pathways. Those adjusted and processed; 38%(148) were upgraded in urgency, 3%(13) were downgraded, 25%(96) went straight-to-test, 20%(76) were redirect from inappropriate investigations.

Conclusions: The RCS efficiently provided focussed personal education to GPs. Referrals were dramatically improved, demonstrating clear benefits to patient care. Focussed support is needed to help GPs accurately and efficiently refer patients.

0846 SELECTIVE USE OF CT REDUCES NEGATIVE APPENDICECTOMY RATES AND HOSPITAL STAY. A PROSPECTIVE STUDY

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Aims: To demonstrate that selective abdominal CT has a benefit in reducing negative appendectomy rates associated surgical complications, length of hospital stay and overall NHS costs.

Methods: Over a two year period in a District General Hospital a total of 404 patients were admitted with right iliac fossa (RIF) pain. Of these patients those who were found to have symptoms, signs and a WCC giving an Alvorado score of 8 or more, appendectomy was undertaken. Patients who had an Alvorado of 4-7 were divided into those who had abdominal CT scanning with management according to the CT result and those who were further clinically observed, with treatment depending on their clinical course. An analysis of clinical outcomes, subsequent negative appendectomy rates and hospital stay was then made.

Results: The results demonstrated that the negative appendectomy rate in patients with an Alvorado score of 8+ was 9%. In the Alvorado score 4-7 group the negative appendectomy rates for CT and non-CT patients were 7% and 24% respectively.

Conclusion: The study demonstrates that CT scanning has a useful role in clarifying the diagnosis in patients with RIF pain. It must be advised that the use of CT is selective and not routine.

0848 GROUP A STREPTOCOCCUS OUTBREAK – A CLINICAL GOVERNANCE ISSUE

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Introduction: An outbreak of deep-seated Group A Streptococcal (GAS) infections occurred in reduction mammoplasty patients in our unit following which a peri-operative antimicrobial prophylaxis protocol was introduced.

Aim: To assess if the new antimicrobial prophylaxis protocol reduced wound infection rates

Methods: A case note review for all patients undergoing bilateral reduction mammoplasty 9 months prior to (group 1) and 9 months following (group 2) introduction of this protocol was carried out at the Northern General Hospital. Infection rates between the two groups were compared. Steps to deal with the GAS outbreak and the clinical governance issues raised consequently are also discussed

Results: There were 103 patients in Group 1 and 87 in Group 2. 53% of patients in group 1 were given antibiotics at induction versus 95.8% in Group 2. Infection rate was 12.5% in group 1 versus 6.9% in group 2 ($p=0.20$ χ^2 test, 95% CI: 0.188–1.427). Return to theatre following infection occurred in 3% of patients in Group 1 ($n=3/103$) versus none in group 2. GAS was implicated in 20% ($n=21/103$) cases in group 1 versus 0% in group 2.

Conclusion: Enforcement of this antimicrobial prophylaxis policy eradicated serious infections following reduction mammoplasty.

0854 THE SAFETY AND EFFECTIVENESS OF HERNIOGRAMS IN THE INVESTIGATION OF PATIENTS WITH OCCULT HERNIAS IN A SINGLE UNIT

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Introduction: The aim of this study was to examine the safety and efficacy of herniogram use in a single unit in patients presenting with a suspected occult hernia.

Methods: Patients who underwent herniography between 02/07/07 and 01/09/2010 were retrospectively identified in a single unit. Patient's herniogram results and subsequent management were recorded using clinical and radiological databases.

Results: 71 patients were identified. 42 patients had positive herniograms. 19 patients underwent surgical repair (11 direct, 7 indirect, 1 no hernia found), 4 await surgery and 19 had no surgical intervention as were either asymptomatic or had no hernia clinically. Of the 29 patients who had negative herniograms 4 were referred to Chronic Pain Team, 1 underwent Gilmore's groin repair and 24 patients were discharged. As a direct result of the herniogram, one patient developed peritonitis, requiring a subsequent laparoscopy confirming small bowel perforation and another suffered a vasovagal episode when contrast was instilled.

Conclusion: Positive herniograms only changed patient management in 55% of cases whereas a negative result allowed the majority of patients to be discharged or appropriately referred on. Given the invasive nature of the procedure, herniograms should only be requested if a positive result will directly change patient management.

0856 ESTABLISHING A LEVEL OF COMPETENCY FOR ACQUIRING BASIC ENDOSCOPY SKILLS ON A VIRTUAL REALITY ENDOSCOPY SIMULATOR

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Aims: This study aimed to determine expert benchmark metrics for acquiring the generic GI endoscopy skills on the Virtual Reality Symbionix GI Mentor II and also whether the simulator has construct and expert validity for these exercises.

Methods: A prospective comparative study was carried out; nine expert endoscopists and nine novices performed four generic endoscopy exercises on the simulator. After one practice run, data was collected from three subsequent runs. The expert endoscopists were asked about their opinion of the simulator.

Results: Both the groups adapted very well to the machine. The experts completed the Endobubble Level 1 and 2 in a mean of 76.68seconds and 100.47seconds respectively (Novices in 59.66seconds and 90.86seconds respectively) The Endobasket tasks Level 1 and Level 2 were completed in means of 65.04 and 122.88seconds, respectively (Novices in 64.41 and 111.00seconds respectively).

Conclusions: In order to create a robust curriculum there need to be endpoints for the trainees to achieve and this can be quantified by using

data from expert endoscopist performing simulated endoscopy. The longer time taken by experts is a reflection of more time spent inspecting the virtual bowel. All expert endoscopists welcomed the simulator as a novel training method and curricula will be developed to be used in formal training programmes.

0857 A RETROSPECTIVE AUDIT STUDYING TONGUE TIE DIVISION IN INFANTS AT A TERTIARY REFERRAL CENTRE

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Aim: Ankyloglossia or tongue tie is a congenital abnormality leading to a short lingual frenulum. This condition has been identified as a reason for poor feeding which in turn can lead to failure to thrive. The evidence for such a link is controversial.

Our centre offers the division of tongue tie in an out-patient setting. This audit was initiated to evaluate the service that we provide and also to see whether the procedure had any effect on improving feeding difficulties.

Method: The parents of 100 infants who had undergone the procedure over the last six months were called. A set proforma that had been pre-designed was then completed.

Results: The age of division ranged from 1 - 89 days and the median age was 13.6 days. 70% of the mothers were breastfeeding. 74% of mothers reported an improvement in feeding. 80% of these claimed that this was noticed within 24 hours. There were no reported complications.

Conclusion: The procedure offered by our unit does not require general anaesthetic or an in-patient stay. It is fast, simple and relatively low risk. There may be a benefit to tongue tie division in symptomatic infants however these results are not conclusive.

0858 NATURAL HISTORY OF RECOVERY FOLLOWING FACIAL PARALYSIS: AN OUTCOME ANALYSIS

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Aim: The study aims to identify clinical factors which can be used to predict natural recovery following facial paralysis.

Methods: The material includes 166 patients with at least 6 months follow-up from the initial diagnosis of facial paralysis. Natural recovery was studied retrospectively using House-Brackmann system for each of these four factors: age at onset, degree of paralysis at onset, cause, and the presence of aberrant regeneration. Patients who developed facial paralysis following acoustic neuroma excision were further studied to identify additional factors affecting natural recovery in this specific group, including size of the tumour, status of the facial nerve, and surgery to the nerve following tumour removal.

Results: Statistical analysis showed that initial House-Brackmann grade at onset ($p=0.038$), cause ($p=0.025$), and the presence of aberrant regeneration ($p=0.024$) had statistical significance in predicting natural recovery. In the acoustic neuroma subgroup, status of the nerve following tumour excision demonstrated statistical significance in natural recovery ($p<0.001$).

Conclusion: Despite still being in the early stages, it is possible to predict natural recovery based on clinical findings. The findings can be used in the future practice to identify patients who would benefit most to interventions as well as estimating a timeline of natural recovery.

0860 SYSTEMATIC REVIEW OF PUBLISHED AND UNPUBLISHED DATA ON THE INCIDENCE OF INCISIONAL HERNIA FOLLOWING CLOSURE OF ABDOMINAL WALL STOMAS

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Aims: A systematic review of the current literature was undertaken to attempt to quantify the rate incisional hernias following abdominal wall stoma closure.