taking part and learning how to organise such a trip can prove invaluable and diversifies our training experience.

**Methods:** A strong emphasis on the multidisciplinary aspect of Cleft Lip and Palate surgery is paramount. Under the guidance of Emeritus Professor ST Lee of the Singapore General Hospital Plastic Surgery Department, we describe the process of starting up a mission trip to Hainan, China. The involvement of health professionals including Plastic Surgeons, Anaesthetists, Orthodontists and Speech and Language Therapists are key to a successful mission trip.

**Results:** Having participated in two consecutive years, each yearly mission trip was a success. In total, 46 patients were screened and 31 of those (ages 4 months to 27 years of age) were operated on. A total of 19 patients were referred for Speech and Language therapy. A total of 7 patients had dental procedures done.

**Conclusion:** As a trainee, I believe that such trips provide a learning opportunity to work in an environment different from that in the UK. It also concentrates learning and broadens our exposure to Cleft Lip and Palate Surgery.

**1204: TRAINING OPPORTUNITIES FOR CORE TRAINEES IN OPEN ELECTIVE INGUINAL HERNIA REPAIR – A FOUR-YEAR EXPERIENCE FROM DISTRICT GENERAL HOSPITAL**

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**Aim:** The aim of this study is to investigate current trends in the provision of training opportunities for open elective inguinal hernia repair following the implementation of EWTD.

**Methods:** We conducted a retrospective study on 569 consecutive open and laparoscopic inguinal hernia repairs between 2007 and 2011. We retrieved the relevant details from theatre registers and cross-checked the data retrieved with logbooks of Core Trainees where possible.

**Results:** Overall numbers of open inguinal hernia repairs performed had decreased from 184 in 2007 to 120 in 2011 with a mean percentage decrease of 13% per year. The proportion of laparoscopic hernia repairs performed increased significantly over the last four years (18% vs 38%, Chi-square test; p < 0.01). The proportion of open inguinal hernia repairs attended by Senior House Officer (SHO) grade decreased significantly between 2008 and 2011 (51% vs 24%, Chi-square test; p < 0.01). In particular, there were no significant differences in the attendance of Core Trainees as compared to non-trainee grade SHOs.

**Conclusion:** The reduction in overall case volume and increase in laparoscopic repairs further diminished training opportunities for Core Trainees in open elective inguinal hernia repair. Targeted theatre attendance might reduce missed training opportunities in the era of EWTD.

**1207: SPORTS HERNIAS – OPERATION TO FULL RECOVERY IN 2 WEEK WITH NEW TECHNIQUE MR K. THIRUPPATHY, MR. P. LYON, MR SJ SNOKS, DEPARTMENT OF SURGERY, KING GEORGE HOSPITAL, ILFORD, LONDON**

Kumaran Thiruppathy, Paul Lyon, Steve Snooks. King George Hospital, Ilford, Essex, UK

**Introduction:** Inguinal sports hernias affect 5-28% of athletes disrupting their livelihood. It is characterised by a weakness of the transversalis fascia. Many methods exist to repair these hernias using open and laparoscopic techniques. We present our series using an open hernia repair technique using, with a self adhesive mesh versus open repair with a non adhesive mesh.

**Methods:** Four hundred and sixty professional male athletes noted clinically and confirmed radiologically to have groin hernias were operated on between 2005 -2010, with 70% having bilateral repairs. 202 Patients had open hernia repair - a non-adhesive mesh, 256 patients had open repair with a self adhesive mesh (pro-grip mesh, Covidian). Patients were seen 1 weeks post operatively by the operating surgeon and then by team medics.

**Results:** Open technique with placement of the pro-grip mesh could be performed through a small incision 3cm VS 5cm. Athletes were able to return to team normal sporting activity at 2 weeks.

**Conclusion:** Open technique using a pro-grip mesh has a far superior outcome as patients required a smaller incision and less tissue dissection. With this technique Athletes had a faster return to training and full sporting duties compared to conventional techniques.

**ABSTRACTS**

**TRANSPLANT SURGERY 0002: EFFICACY OF TRANS VERSUS ABDOMINIS PLANE BLOCK IN LAPAROSCOPIC LIVE DONOR NEPHRECTOMY – A SINGLE CENTRE EXPERIENCE**

Umasankar Mathuram Thiagarajan, Prarthana Thiagarajan, Atul Bagul, Michael Nicholson. University Hospitals of Leicester, Leicester General Hospital, Leicester, East Midlands, UK

**Aims:** Post-operative wound pain is a disincentive to potential live kidney donors. The transverse abdominis plane (TAP) block is a technique where the local anaesthetic agent is given to block the afferent nerves of the abdominal wall. The aim of this study was to determine the effectiveness of pre-operative transvers abdominis plane blocks on post-operative pain after laparoscopic live donor nephrectomy (LLDN).

**Methods:** A consecutive series of 50 patients receiving TAP block prior to LLDN were compared to a historical control group of 50 patients who had no TAP block.

**Results:** Patients in the TAP group required significantly less post-operative morphine (22.8±29.2 mg) versus (57.4±31.7 mg); P < 0.0001), oral analgesics and anti-emetics compared to the control group. Similarly TAP group discontinued their PCAS quicker than patients in the control group (1.27±0.59) days versus (1.88±0.65) days; P < 0.0001). Post-operative pain scores (P < 0.0001) and sedation scores (P < 0.0001) were lower in TAP block group compared with controls. The length of hospital stay was lower in TAP than the control group (4.3±1.10) days versus (5.14±1.12) days respectively; P = 0.0034.

**Conclusion:** The transvers abdominis plane block provides a safe and highly effective form of post-operative analgesia in patients undergoing laparoscopic donor nephrectomy.

**0015: EARLY REMOVAL OF URETERIC STENTS AND ITS IMPACT ON REDUCING THE URINARY INFECTION IN RENAL TRANSPLANTATION – A SINGLE CENTRE EXPERIENCE**

Umasankar Mathuram Thiagarajan, Prarthana Thiagarajan, Atul Bagul, Michael Nicholson. University Hospitals of Leicester, Leicester General Hospital, Leicester, England, UK

**Aims:** Urological complications, in particular urinary tract infection (UTI) are common, debilitating and affect graft survival, increases morbidity. The study was aimed to assess early removal of ureteric stent and its impact on the incidence of UTI, major urological complications (MUC), graft function and rejection episodes.

**Methods:** The study was carried retrospectively on 127 consecutive renal transplant recipients from 2007-2009 with 1year follow-up. Among 127 recipients, 48 of them had stent removal on day 5 while remaining 79 had them removed at 4-6 weeks after transplantation with flexible cystoscopy.

**Results:** The 127 consecutive renal transplant recipients are included in this study (live donor: n = 85 and cadaveric: n = 42). All recipients were grouped in two arms based on either early (ESR) or late US removal (LSR). The incidence of UTI at 3 months after transplant between ESR and LSR groups were 12/48 (25%) and 35/79 (44%) respectively; P = 0.03. The incidence of MUC in ESR is 2/48 (4%) whereas in LSR groups is 6/79(7%); P = 1.0.

**Conclusions:** The ESR significantly reduces the risk of UTIs in renal transplant patients with no associated increase in MUC in addition to patient avoiding a further procedure for ureteric stent removal.

**0692: TACROLIMUS PRELOADING IN RENAL TRANSPLANTATION FROM LIVE DONORS**

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**Aim:** To report the outcomes of renal transplantation from live donors (LD) in patients receiving pre-transplant Tacrolimus (TAC) loading in a single transplant unit.

**Methods:** A retrospective analysis was performed of LD renal transplants between July 2008- 2010, Patients were preloaded with TAC prior to transplantation (0.05mg/kg twice daily), beginning 4 days pre-operatively. TAC levels were measured pre- operatively (day 0) and target range was 8-10 ng/ml. Patient and graft outcomes were analysed using standard statistical methods.

**Results:** In the cohort (n = 81) the mean (SD) day 0 TAC level was 10.5 (+/- 7.0). 3 patients had delayed graft function (DGF, day 0 TAC levels of 3.9, 7
and 8.6). 20 graft biopsies were performed demonstrating; rejection (n=10), TAC toxicity (n=7), disease recurrence (n=2) and vascular occlusion (n=1). Mean (SD) day 0 TAC levels in these groups were 9.6 (+/- 4.3), 11.6 (+/- 7.2), 17.0 (+/- 16) and 11.6 respectively. Appropriate statistical comparisons were made between groups.

Conclusions: Therapeutic TAC levels were achieved with a pre-operative loading regimen in the majority of patients, even those who developed rejection, DGF and TAC toxicity. Further analysis and comparison with non-preloaded patients is necessary to determine the efficacy of this treatment.

0863: USE OF AORTIC ALLOGRAFT IN RETROHEPATIC INFERIOR VENA CAVA RECONSTRUCTION: A CASE SERIES
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Aims: Reconstruction or replacement of the inferior vena cava (IVC) may be necessary to treat IVC obstruction e.g. post-liver transplantation, or to enable tumour excision. Previous techniques have involved using synthetic or natural venous material. The optimal choice of material is unclear. We aim to assess the feasibility of using aortic allograft for IVC reconstruction.

Methods: Cases in which fresh or cryopreserved aortic allograft were used to reconstruct the retrohepatic IVC were recorded and followed up retrospectively.

Results: Since 2007 six patients have undergone reconstruction of the retrohepatic IVC with fresh or cryopreserved aortic allograft. The surgical procedure was successful in all cases, however one patient died 6 weeks post-operatively from a complication of chest drain insertion and one died 10 weeks post-operatively from tumour recurrence.

Conclusions: To our knowledge, our group is the first to be using aortic allograft for the IVC reconstruction. Aortic allograft offers a promising alternative to previous techniques: a better size match; decreased infection and thrombosis rate compared to synthetic graft; decreased stenosis and aneurysm formation compared to cryopreserved venous graft. We therefore recommend that in planned procedures, cryopreserved (or fresh ABO-matched) aortic allograft represents the optimal choice of graft material for IVC reconstruction.

0894: CAN REGISTRAR TRAINEES PERFORM VASCULAR ACCESS SURGERY EFFECTIVELY?
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In some centres, vascular access surgery is performed exclusively by transplant surgeons. With vascular training program reconfiguration, discussions concerning how vascular trainees can become skilled in fistula formation continue.

Aim: To compare early patency rates for fistula surgery performed by trainees and consultants.

Method: Data was collected prospectively between October 2010 and 2011 on 241 fistulas performed in a single UK centre. All access surgery is performed by transplant surgeons who supervise registrar trainees. Complete data was available for 197 fistulas and these were analysed (78 radiocephalic, 104 brachiophosphalic, 15 brachiobasilic). Early patency rate was defined as palpable thrill and audible bruit at 6cm from the anastomosis at 2 weeks. We compared patency rates when the first surgeon was a trainee or consultant. Chi-squared calculations were performed for statistical significance.

Results: Early patency rate for surgery performed by registrars was 72% and for consultants 81%. This was not significant (p=0.224). Subanalysis according to fistula type revealed no significant difference (radiocephalic p =0.155, brachiophosphalic p =0.729, brachiobasilic p =0.360).

Conclusion: A mix of registrar grades achieved patency rates comparable with consultants. We conclude that vascular access surgery is effective when performed by trainees and provides useful skills transferable to other areas of surgery.

1112: STATIC COLD STORAGE VERSUS HYPOTHERMIC MACHINE PERFUSION FOR PRESERVATION OF MARGINAL RENAL ALLOGRAFTS: A REAL TIME COMPARISON USING RAPID SAMPLING MICROSIALYSIS (RSMD)
Nicholas Bullock 1, Samir Damji 1, Karim Hamaoui 1, Oluwadamilare Oladokun 1, Martyn Boutelle 2, Agnes Leong 2, Michelle Rogers 2, Sally Gowers 2, George Hanna 1, Ara Darzi 1, Vassilios Papalois 1, 1 Department of Surgery and Cancer, Imperial College London, London, UK; 2 Department of Bioengineering, Imperial College London, London, UK

Aim: Static cold storage (SCS) and hypothermic machine perfusion (HMP) are two techniques used to reduce ischaemic injury sustained by renal allografts during the preservation period. We aimed to assess the feasibility of using our novel, clinically validated, rapid sampling microanalysis (RSMD) system in the organ preservation setting, and use it to compare the effects of each technique on tissue metabolism and ischaemia in real time.

Method: 12 porcine kidneys were retrieved, subjected to 15 minutes of warm ischaemia and placed upon clinical models of SCS (n=6) or HMP (n=6) for 24 or 10 hours respectively. A microanalysis catheter was tunnelled into the renal cortex and connected to the RSMD analyser, producing lactate concentrations every 60 seconds.

Results: HMP Kidneys displayed excellent perfusion parameters and the analyser reliably detected quantifiable concentrations of lactate in all experiments. Initial lactate concentrations were significantly higher in kidneys preserved using SCS.

Conclusions: This is the first study confirm the feasibility of RSMD for monitoring the effects of SCS and HMP on renal metabolism and ischaemia in real time. The different cortical lactate profiles in the two groups suggest HMP is superior to SCS at attenuating injury accumulated during procurement and warm ischaemia.

TRAUMA/EMERGENCY SURGERY

0008: A SYSTEMATIC REVIEW OF TREATMENT OF ACROMIOCLAVICULAR JOINT (ACJ) INJURIES
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Hypothesis: There is not enough evidence in the literature to support either surgery or conservative treatment in the management of acute grade III ACJ injuries. This systematic review aims to establish an evidence base for effective treatment of grade III ACJ injuries.

Eligibility Criteria: A review of all articles published on PubMed in English language in relation to the treatment of ACJ injuries was done. All systematic reviews, meta-analyses and randomised controlled trials (RCTs) were critically reviewed and analysed.

Results of search: There were eleven studies which include a Meta-analysis, 3 Systematic reviews, a Literature review and 6 RCTs. Five of these studies recommended non-operative treatment as the best form of management for acute ACJ dislocations, among which only one clearly recommended non-operative treatment for acute grade III ACJ dislocation. The remaining six studies did not find any statistical significance between operative and non-operative treatment of acute ACJ dislocations (at least Rockwood grade III) in terms of functional outcomes and patient satisfaction. None of the studies reviewed recommended surgery as the best overall form of treatment for acute ACJ dislocations grade III-VI.

Conclusion: There is no adequate literature to support the recommendation of operative management for acute grade III ACJ dislocations.

0170: THE TRAUMA OF SURGICAL TRAINING. AN AUDIT OF TRAUMA EXPOSURE & THE IMPACT OF ATLS ON CORE SURGICAL TRAINEES IN THE NORTHERN DEANEY
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Introduction: Successful completion of Advanced Trauma Life Support (ATLS®) is an essential person specification for entry into Speciality Training in General Surgery.

Aim: To establish the trauma exposure Northern Deanery core surgical trainees (CST) experience, and the impact of completing ATLS on both experience and confidence in handling trauma scenarios.

Methods: A survey of all CST in the Northern Deanery, establishing their experience in the trauma skills taught during ATLS, and the impact of completing ATLS on their procedural experience, and confidence in handling trauma.

Results: 39 questionnaires were completed reflecting 426 months of CST. Prior to ATLS 6 (15%) trainees had inserted a central line, 6 (15%) a chest