

completed by 511 pre-clinical medical students. A free hand comment section was also included.

Results: 85% and 98% of students agreed or strongly agreed that anatomy is an interesting subject and an important component of medical education respectively. 63% agreed or strongly agreed that Anatomage significantly improved their understanding of 3D anatomy. 78% agreed or strongly agreed that the interactive nature of Anatomage made learning anatomy more engaging. Anatomage rated 4th out of 5 anatomy learning modalities. A large proportion of students volunteered that they needed more time at the Anatomage table.

Conclusion: Anatomage can play an important role in the acquisition of 3D anatomy knowledge and promises to be a useful adjunct to traditional learning modalities, which still rank highly. Early surveys reveal that students desire more time at the table to fully realise the educational potential of this technology.

0939: AN OVERVIEW OF TEAMWORK TRAINING AND ASSESSMENT IN MODERN SURGICAL PRACTICE

G. Whittaker^{1,*}, H. Abboudi², M. Khan², P. Dasgupta², K. Ahmed². ¹ King's College London, UK; ² Guy's and St Thomas' NHS Foundation Trust, UK

Aim: To provide an overview of teamwork training and assessment tools available for surgery and review the internal validation evidence supporting each tool, with subsequent formation of a framework for team training.

Methods: A comprehensive literature search was conducted to identify teamwork assessment tools using MEDLINE® (1946 to December 2014), EMBASE® (1974 to December 2014), and PsycINFO® (1806 to December 2014) databases. The following keywords were used in combination: "teamwork", "team work", "team-working", "non-technical skills", "nontechnical skills"; "assessment", "assessing"; "surgery", "surgical", and "surgeons". Validation evidence was gathered using a similar search, combining each tool with "validation", "validity", and "valid" keywords.

Results: 590 publications and conference abstracts of potential relevance were discovered and subsequently screened to identify seven tools. Each tool has at least one item of evidence supporting validity, though the number and quality varies greatly. The Non-Technical Skills for Surgeons (NOTSS) tool demonstrated the highest level of validity and has also shown reliability and acceptability in practice.

Conclusion: Teamwork training and assessment are important aspects of clinical practice which should be core themes of current surgical curricula. Integration of the NOTSS tool into early surgical training should be encouraged to meet evolving requirements of surgeons.

Medical Student Short Paper Session

0087: INCIDENCE AND OUTCOMES OF POLYOMAVIRUS INFECTION IN 639 KIDNEY TRANSPLANT RECIPIENTS: ARE HIGH IMMUNOLOGICAL RISK CHARACTERISTICS MORE RELEVANT THAN SPECIFIC INDUCTION OR MAINTENANCE IMMUNOSUPPRESSIVE REGIMENS?

L. Harris^{1,*}, J. Worsfold¹, E. Favi², E. Aboutaleb², R. Cacciola², C. Puliatti², C. Sammartino², R. Sivaprakasam². ¹ Barts and The London School of Medicine and Dentistry, UK; ² The Royal London Hospital, UK

Aim: Polyomavirus-associated nephropathy (PVAN) is a recognized cause for graft dysfunction and allograft loss. Over-immunosuppression is the main risk factor for the development of PVAN but the role of donor and recipient characteristics is still unclear.

Methods: In this single centre cohort study we prospectively collected data to evaluate incidence, outcomes and risk factors of Polyomavirus infection in 639 consecutive KTx performed between 2007 and 2013.

Results: During a mean follow up of 4.5 years, viraemia was detected in 54/639 patients (8.4%); 26/639 recipients (4.1%) had biopsy-proven PVAN. Death-censored graft loss rate was significantly higher in patients with PVAN compared to recipients with no viraemia: 41.7% (10/24) vs. 14.5% (76/523), respectively ($p < 0.05$). After immunosuppression reduction, 43/54 patients (79.6%) had no significant viraemia; four patients (7.4%) had acute

rejection, two (3.7%) had ureteric stenosis. The independent risk factors were: recipient BMI, Afro-Caribbean recipient ethnicity, older donor age, higher DR & overall mismatch, and biopsy proven acute rejection ($p < 0.05$).

Conclusion: Our results show that PVAN significantly reduces kidney allograft survival and identifies a need for post-transplant aggressive screening, earlier intervention and also supports our hypothesis that high immunological risk characteristics are more relevant than immunosuppressive regimens.

0131: PRE-MORBID FUNCTION AND CO-MORBIDITY PREDICT SHORT AND MID-TERM OUTCOMES FOLLOWING RUPTURED ABDOMINAL AORTIC ANEURYSM (RAAA) REPAIR

A. Srinivasan^{2,*}, G. Ambler¹, M.S. Gohel¹, K. Varty¹, P.D. Hayes¹, J.R. Boyle¹, P. Coughlin¹. ¹ Addenbrookes Hospital, UK; ² University of Cambridge, UK

Aim: Strategies for improving outcomes for patients with rAAA are becoming more evident especially given the aging population. This study aimed to integrate measures of function alongside co-morbidity to determine outcome.

Methods: Patients treated for a rAAA over 8 years were assessed. Demographics, mortality and requirement for institutional care following discharge (RICD) were recorded, as well as a variety of measures of function and co-morbidity. The primary outcome was one-year mortality. Outcome models were generated using multivariate logistic regression and were compared to models of vascular frailty.

Results: 182 patients were treated with a 30-day and one-year mortality of 22.5% and 32.4% respectively. The optimal model for one-year mortality utilised the Katz score, polypharmacy, visual impairment, anaemia and statin use. ROC curve analysis revealed this a good predictor of one-year mortality (area under ROC curve (AUC) = 0.78). The model offered significantly improved prediction of mortality over models of vascular frailty ($P < 0.001$).

Conclusion: This novel rAAA model incorporating function and co-morbidity offers good predictive power for mortality. It is quick to calculate and may ultimately become helpful for both patient counselling/selection and comparative audit at a time when outcome in patients with rAAA increasingly comes under the spotlight.

0506: IS THE ENDOSCOPIC THIRD VENTRICULOSTOMY SCORE AN APPROPRIATE TOOL TO INFORM CLINICAL DECISION-MAKING? A NATIONAL MULTI-INSTITUTIONAL EXTERNAL VALIDATION STUDY

R.W. Foley^{*}, L.V. Gorman, S. Ndoro, D. Crimmins, J. Caird. Children's University Hospital Dublin, Ireland

Aim: To evaluate the performance of the Endoscopic Third Ventriculostomy Success Score (ETV-SS) in an independent cohort of patients from the Republic of Ireland.

Methods: Prospectively collected data on all paediatric ETV procedures performed in Ireland between 2008 and 2014 were analysed. The cohort consisted of 112 consecutive patients less than 16 years of age who had undergone ETV for the treatment of hydrocephalus. The percentage chance of success at 6 months was calculated as per the ETV-SS.

Results: At 6 months the success rate of ETV in this cohort was 61%. Dividing the cohort into low (<30%), intermediate (40–70%) and high-risk (>70%) categories demonstrated good calibration between predicted probabilities and actual outcome. The AUC for the ETV-SS was 0.60.

Conclusion: The ETV-SS has demonstrated clinical utility in this national cohort of patients and can be used to predict the outcome of ETV. The ETV-SS can be employed in clinical practice to inform the decision to proceed to ETV and facilitate the discussion with parents as to the likelihood of the procedure being a successful treatment strategy.

0553: MORTALITY AND INFECTION ASSOCIATED WITH EXTERNAL VENTRICULAR DRAINS (EVD) IN A REGIONAL NEUROSURGICAL UNIT

C. O'Brien^{2,*}, E. Broughton¹. ¹ Derriford Hospital, UK; ² Peninsula College of Medicine and Dentistry, UK