

chemical use, durability, longevity, resistance to bacteria; and (2) educational value in terms of suitability for teaching undergraduate and postgraduate students, suitability for clinical courses, tissue colour, consistency, accuracy, odour and joint flexibility. On comparison, Edinburgh hybrid embalming technique has shown better tissue consistency, less intense odour, suitability for surgical training and anatomy teaching, better joint flexibility, cost effectiveness, and less chemical use. The limitation of the current study was evaluating the longevity. Soon, further continued evaluation of EHEM including body longevity, joint flexibility and persistence of bacteria will be studied.

Thorax and abdomen

6. DUBEY, ADITI, RITU SEHGAL, T.C. NAG, ANURAG SRIVASTAVA, TONY G. JACOB and ASHUTOSH KUMAR, Department of Anatomy, All India Institute of Medical Sciences, New Delhi, India. **Significance of immunohistochemical expression of TrkA receptor in breast tumors for new treatment strategies.**

Breast cancer is one of the major causes of cancer-related deaths in women. Nerve growth factor (NGF), the prototype member of the neurotrophin family, and its two receptors tyrosine kinase A (TrkA) and p75 NTR, are implicated in several cancers including CA breast. The present study was designed to observe and compare TrkA receptor expression in normal breast tissue as well as benign and malignant breast tumors (with and without chemotherapy). Surgically removed fresh tissue specimens from benign and malignant breast tumors (test) as well as normal tumor margins/mammoplasty tissue (control) were collected from 28 patients reporting to Surgery OPD and divided into one control and three test groups (control/benign/malignant with/without chemotherapy) each having tissue collected from 7 patients. The TrkA receptor expression was observed using Immunohistochemistry (IHC) and Sandwich ELISA. The malignant breast tumor group (without chemotherapy) exhibited the highest and the control group showed the least mean intensity of TrkA receptor expression on IHC & ELISA. This evidence of the critical role of TrkA receptor in promoting tumor growth and metastasis makes it a potential therapeutic target for designing new and efficacious management strategies to combat breast cancer.

7. THIARYA, DYLAN, AMIL SINHA, KAYANI KAYANI, JONATHAN BROWN and CECILIA BRASSETT, Human Anatomy Teaching Group, Department of PDN, University of Cambridge, Cambridge, United Kingdom. **A novel endoscopic classification for the major duodenal papilla.**

During ERCP (endoscopic retrograde cholangiopancreatography), endoscopists need to make an initial assessment of the major duodenal papilla (MDP) to determine the optimal approach for cannulation of the common bile duct, and a safe limit for sphincterotomy. However, no recognised classification system for papillary morphology has been established. This study analysed the distinctive features of the MDP in 100 videos of successful cannulations in virgin papillae, and presents a novel, progressive categorisation based on increasing prominence and mobility of the MDP. Types I-IV are as follows: Flat (biliary epithelium in continuity with the duodenal wall), Prominent (visible papillary epithelium around the orifice), Infundibular (with an infundibulum, traversing mucosal fold and tethering to the duodenal wall) and Dependent (distended mobile papilla with an inferiorly facing orifice). This system was assessed by a preliminary validation exercise with 40 medical students. After a 20-minute training exercise, they evaluated 35 10-second video clips of the papilla and selected the "correct" type in an online survey. While the sensitivity (S) and positive predictive values (PPVs) of their responses were promising: Type I (74%, 59%); II (64%, 58%); III (44%, 58%) and IV (66%, 73%), our results highlighted the need to refine the definition for Type III.

8. LIN, BENJAMIN, JONATHAN BARTLETT, TOM LLOYD, DIMITRIS CHALLOUMAS, CECILIA BRASSETT and VIKAS KHANDUJA, Human Anatomy Teaching Group, Department of PDN, University of Cambridge, Cambridge, United Kingdom. **A cadaveric study of anatomical variation in the distal attachments of the iliopsoas complex.**

The iliopsoas complex, comprising psoas major, iliacus and psoas minor, is implicated in conditions such as impingement, tendinopathy and bursitis. This study investigated its distal attachment in 28 cadavers, which is traditionally described as a conjoined tendon inserting onto the lesser trochanter of the femur. Results show that iliacus incorporated two distinct components in 15 subjects, with the medial bulk overlying the lateral portion. Union with psoas major occurred at a mean distance of 24.89 ± 17.91 mm proximal to the mid-inguinal point. In all cases, the lateral-most fibres of iliacus had a non-tendinous insertion to the anterior aspect of the lesser trochanter, extending inferiorly to the femoral shaft. Only 12 subjects had a single tendon originating from psoas major. Two or three distinct tendons were found in 12 and 4 subjects respectively, with the medial tendon arising from psoas major and the additional lateral tendons from iliacus. Psoas minor was present in 14 subjects. In conclusion, the distal attachments of the iliopsoas complex show considerable variation. Awareness of the site of iliacus-psoas fusion avoids misdiagnosis of a separate psoas tendon as inguinal lymphadenopathy, especially in assessing metastatic spread via imaging. The high frequency of multiple tendons may also have implications for tenotomy.

1. LAWRENCE, WILLIAM and MANDEEP GILL SAGOO, King's College London Anatomy Department, Hodgkin Building, Guy's Campus, London, UNITED KINGDOM. **Intrahepatic relationships of Rouviere's sulcus to the pedicles of the right liver.**

Rouviere's sulcus (RS) is a groove on the posterior right liver extending inferolaterally from the porta hepatis towards segment 6. RS is used during laparoscopic cholecystectomy as a safety marker, but may also be useful for Glissonian approaches for inflow control during segmentectomy; this requires knowledge of how intrahepatic right liver pedicles relate to RS. Twenty formalin-fixed livers from the Department of Anatomy at King's College were included. Dimensions of RS were measured before dissecting the livers to measure the pedicle distance from RS and the angles of branches to segment 7 and 6 (P6). CT scanning the livers also allowed evaluation of an overlay projection assay. Fourteen livers had RS with length (mean) = 35.7mm (± 9.6) extending at an angle (mean) = 24° (± 19.9). All pedicles except P6 were related to each other ($p < 0.05$) and to the depth of RS ($p < 0.05$). The angle of P6 was positively associated with distance of its origin from RS ($p < 0.05$). Dimensions of RS were consistent and unaffected by cadaver characteristics. P6 was the closest pedicle to RS, with a unique relationship to the middle of RS. Overlay projection offers a faster alternative for studying intrahepatic relationships.