

American Gastrointestinal and Endoscopic Surgeons recommendations being the only written guidance in the literature.

Methods Welsh trainees and ALS members were invited to complete a online survey to select the descriptive terms that best fit their method of cystic duct identification including Calot's triangle Identified", "Calot's triangle Demonstrated", "Infundibular technique utilized" and "Critical View of safety demonstrated".

Results 133 surveys were completed by six clinical fellows (4.5%), 28 ST/SpRs (21.2%) and 98 consultants (74.2%). The most common descriptive terms used was "Calot's triangle demonstrated" (38.3%), followed by "Calot's triangle identified" (32.5%), "critical view of safety demonstrated" (24.2%) and lastly "infundibular technique utilized" (5%). The majority of surgeons in this survey do not seem to select the terms that are perceived to reflect "best practice" for the method of cystic duct identification during LC. It is possible that these surgeons are utilising "best practice" but did not recognise the provided terms or selected the incorrect term or used other terms that were not provided in this survey.

Conclusion The survey highlights the need for standardisation of image-guided surgical procedures to mitigate the effect of human error and take the outcome of such surgery a new height that was never reached in the open era. Standardisation will also permit systematic training and streamline competency testing paving the way for the transition from apprenticeship-based training to a systematic time-efficient training. In the aviation industry the initial study into human factors was controversial but is now a mandatory and cornerstone process for achieving best air transport safety. We feel there is potential for adopting a similar approach in the rapid and technologically advancing era of surgery based on "visual disciplines" to help reduce human error and thus leading to improved patient safety.

Competing interests None declared.

REFERENCE

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PTU-073 HEPATIC SINUSOIDAL INJURY IS ASSOCIATED WITH SHORTENED LONG-TERM SURVIVAL IN PATIENTS UNDERGOING RIGHT TRISECTIONECTOMY FOR COLORECTAL LIVER METASTASES

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Introduction Recent data have suggested that oxaliplatin-associated sinusoidal injury (SI) in the non-tumour bearing liver (NTBL) may be associated with adverse long-term outcome following hepatectomy for colorectal liver metastases (CRLM), though this observation may be an epiphenomenon of associations with unfavourable tumour biology. This study aimed to assess the impact of NTBL histology upon long-term outcome in a series of consecutive patients undergoing right hepatic trisectionectomy for CRLM.

Methods Clinicopathological data for patients undergoing right trisectionectomy at a UK tertiary referral hepatobiliary centre between January 2002 and December 2008 were obtained from a prospectively maintained database. Blinded NTBL pathological review was conducted by two pathologists using established criteria for SI, steatosis, non-alcoholic steatohepatitis, fibrosis and cholestasis. Univariate and multivariable Cox regression analyses were performed to correlate perioperative and pathological variables with long-term overall and disease-free survival. Postoperative deaths (90-day) were excluded from long-term survival analyses.

Results A total of 66 consecutive patients underwent right trisectionectomy for CRLM over the study period. Preoperative oxaliplatin-based chemotherapy was used in 24 cases (36.4%, median 6 cycles, range 2–8 cycles). SI was noted in 21 cases (31.8%) and was independently associated with oxaliplatin use. 5-Year overall survival rate was 28.8%. On multivariable analysis, number of metastases resected and SI were independently associated with shortened overall survival following trisectionectomy. Number of metastases resected, perioperative blood transfusion and SI were independently associated with shortened disease-free survival following trisectionectomy. Steatosis, non-alcoholic steatohepatitis, fibrosis and cholestasis showed no association with long-term survival.

Conclusion Short-course oxaliplatin-associated SI is associated with adverse prognosis following right trisectionectomy for CRLM. The inclusion of traditional clinicopathological variables as covariates suggests that this finding is unlikely to simply be an epiphenomenon of associations with unfavourable tumour biology. Further studies are necessary to confirm these findings and to explore the underlying mechanism(s).

Competing interests None declared.

PTU-074 ANATOMIC VS NON-ANATOMIC RESECTION OF COLORECTAL LIVER METASTASES: A COMPARISON OF SURGICAL AND ONCOLOGICAL OUTCOMES

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Introduction Non-anatomic resections (NAR) for colorectal liver metastases (CRLM) have become increasingly common in an attempt to increase resection rates and to enable parenchyma-preserving resections, though some investigators have reported NAR to be associated with higher rates of resection margin positivity and poorer long-term survival than anatomic resections (AR). The aim of this study was to compare surgical outcomes, recurrence and survival in patients treated with NAR and AR.

Methods Patients undergoing hepatic resection for CRLM between January 2002 and December 2008 were identified from a prospectively maintained database. Patients were divided into two groups: those who underwent AR and those who underwent NAR. Patients who underwent simultaneous AR and NAR were excluded from analysis. Clinicopathological variables and perioperative outcomes, as well as long-term disease-free and overall survival were compared between the AR and NAR groups, using the χ^2 test, Mann–Whitney U test, logistic regression analysis, log-rank analysis and multivariable Cox regression analysis employing a backwards stepwise model.

Results Over the study period 91 patients underwent AR and 77 patients underwent NAR. Perioperative (90-day) morbidity, major morbidity and mortality occurred in 25.0%, 8.3% and 1.8% of cases respectively. There was no significant difference in rates of perioperative morbidity, major morbidity or mortality according to resection type (all $p > 0.30$). There was also no difference in the incidence of positive resection margins between resection types ($p = 0.413$). Overall survival was 48.5% and 36.6% at 3 and 5 years respectively, with disease-free survival of 31.4% and 25.3% at 3 and 5 years respectively. Type of resection was not associated with any significant difference in overall ($p = 0.430$) or disease-free survival ($p = 0.625$) following metastasectomy.

Conclusion AR is not superior to NAR in terms of perioperative risk, tumour clearance, time to recurrence or long-term survival following metastasectomy. NAR should remain an integral component of the surgical treatment of CRLM and may enable increasing rates of