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Introduction Hepatocellular carcinoma (HCC) behaves differently in cirrhotic and non-cirrhotic livers. Microvascular invasion (MVI) is a key determinant of outcome following curative treatment for HCC. Despite attempts to reach a consensus, reliably identifying microvascular invasion remains difficult. Interrogating factors influencing MVI in patients with or without cirrhosis may determine more reliably identifiable factors or surrogates for MVI and provide valuable insight into the underlying biology of HCC.

Methods Review of a prospective database of 229 consecutive patients undergoing hepatectomy (n=164) or transplantation (n=65) for HCC at St James's University Hospital, UK between 1998 and 2011. Diagnosis was based on published guidelines and incidental explant tumours excluded. 115, 50.2% occurred in cirrhotic compared to 114, 49.8% in non-cirrhotic livers. Clinicopathological characteristics were correlated with survival and MVI. Survival was calculated using the Kaplan–Meier method with Log-rank and Cox stepwise regression for survival comparisons. Univariate χ^2 and multivariate logistic regression were used to analyse relationships between clinicopathological variables and MVI (p<0.05 was indicative of statistical significance).

Results In non-cirrhotic patients recurrence independently predicted overall survival (OS) (p=0.001) while multifocal tumours (p=0.042) and viral aetiology (p=0.029) independently predicted disease free survival (DFS). In cirrhotic patients recurrence (p<0.001), MVI (p<0.001) and tumour size >5 cm (p<0.005) predicted overall survival (OS) and disease free survival (DFS) in univariate analysis. Only recurrence (p=0.001) for OS and MVI (p=0.002) and tumour size >5 cm (p=0.027) for DFS retained independence on multivariate analysis. Univariate analysis of pre-operative variables revealed MVI was significantly associated with multifocal HCC and poor differentiation in non-cirrhotic patients (p=0.04 and p=0.019), and with viral aetiology in cirrhotic patients (p=0.047).

Conclusion In cirrhotic patients MVI was an independent predictor of DFS while recurrence strongly determined OS. Viral aetiology was the only significant pre-operative factor associated with MVI in the explant. In non-cirrhotic patients multifocality strongly predicted DFS and was associated with MVI. We hypothesise that multifocality in non-cirrhotic HCC may actually be representative of MVI rather than multifocal de novo tumour formation. Given the challenges of robustly identifying MVI in these patients, multifocality could be an extremely useful prognosticator and histopathological indicator of MVI, which we know carries series implications for our patients.

Competing interests None declared.

PWE-142 ENDOSCOPIC STENTING FOR MALIGNANT BILIARY OBSTRUCTION: A 3-YEAR REVIEW

doi:10.1136/gutjnl-2012-302514d.142

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Introduction Placement of biliary stents in malignant biliary obstruction is an area of controversy as ERCP and stent placement may cause morbidity in patients with operable disease. We review here our experience in a cohort of relevant patients.

Methods A 3-year database review to identify all relevant cases for case note review. Principal outcome measures were: success of stent placement; need for further endoscopic intervention; surgical resection rates and documented complications.

Results 124 cases were identified. 100 patients underwent ERCP; stent placement was successful at first ERCP in 82% of cases. A

further 5% were stented at a second ERCP and 10% required percutaneous drainage. Plastic biliary stents were used in most cases (75/87, 86%); remaining patients had metal stents. Of plastic stents, 31/75 (41%) required unscheduled re-intervention for stent occlusion, after a median interval of 90 days. 66 patients were referred for a surgical opinion; remaining patients had inoperable disease or comorbidity. Of the referred patients, 28 (23% of whole cohort) underwent resection surgery and of these 8/28 (29%) needed pre-operative revision of their biliary stents. The median post-operative stay was 11 days and serious complications including one death occurred in three cases (11%).

Conclusion In this review only 23% of patients with malignant biliary obstruction were suitable for surgical resection. However where prior plastic biliary stents were used, a high proportion required re-intervention and this practice may have contributed to post-operative complications.

Competing interests None declared.

REFERENCES

1. **Sewnath ME**, Karsten TM, Prins MH, *et al*. A meta-analysis on the efficacy of preoperative biliary drainage for tumors causing obstructive jaundice. *Ann Surg* 2002;**236**:17–27.
2. **Wang Q**, Gurusamy KS, Lin H, *et al*. Preoperative biliary drainage for obstructive jaundice. *Cochrane Database Syst Rev* 2008;(3):CD005444.
3. **van der Gaag NA**, Rauws EA, van Eijck CH, *et al*. Preoperative biliary drainage for cancer of the head of the pancreas. *N Engl J Med* 2010;**362**:129–37.

PWE-143 FACTORS PREDICTIVE OF SURVIVAL FOLLOWING RESECTION OF EITHER RECTAL OR COLONIC LIVER METASTASES

doi:10.1136/gutjnl-2012-302514d.143

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Introduction While colonic and rectal cancers are often considered as a single disease entity there is a growing body of evidence that these are in fact separate disease processes. While a variety of factors have been identified in the literature as predictive of outcome following resection of metastatic disease from colorectal primaries it is not known if colonic liver metastases (CLM) behave differently to rectal liver metastases (RLM). The aim of this study was to determine those factors which predict long-term survival following resection of either CLM or RLM.

Methods We analysed a prospectively maintained Hepatobiliary database of 418 patients (with complete follow-up) who underwent liver resection for CRM between January 2000 and December 2010. The cohort was stratified according to the site of the primary tumour with rectal tumours being defined as those within 15 cm of the anal verge. Continuous variables were compared with the Mann–Whitney U test whereas categorical variables were compared with χ^2 test. Survival analysis was performed with Kaplan–Meier plots and significance assessed with log rank test. Multivariate analysis was performed using a Cox-Regression model. A p value of <0.05 was considered significant.

Results 55% of patients had CLM (n=227) whereas 45% had RLM (n=191) (p=0.258). Patients with CLM were less likely to have node positive primary disease (52% vs 62%; p<0.05). Overall 5-year survival was similar for both CLM and RLM (42% vs 45%; p=0.62). Following resection of CLM multivariate analysis identified a CEA \geq 200 (OR 2.39; p<0.01) and the presence of 4 or more tumours (OR 2.4; p<0.05) as independent predictors of long term survival. While there was a strong trend towards poorer 5-year overall survival in those with a resection margin <1 mm this did not reach statistical significance (p=0.383) on univariate analysis. Following resection of