

specifically crosschecked with a separate histopathology database. Univariate and subsequent multivariate analysis were carried out for biliary and vascular invasion individually and in combination with other prognostic variables to assess their clinical significance. Survival was assessed using Kaplan–Meier plots and log rank tests for significance ($p < 0.05$) using SPSS V.19.

Results 432 patients (67% male, mean age 64.5 years, range 29–86) underwent liver resection for CRLM during this time period. Primary tumours were either colonic (54%) or rectal (46%). Seventy patients (16.3%) had positive biliary invasion on tumour histopathology whereas 137 (32%) had vascular invasion. Overall 155 (36%) patients had both biliary and vascular invasion (BVI). Overall 5-year survival was 43% in this series. On univariate analysis 5-year survival in those patients with biliary invasion was 39.9% compared to 42.5% in those without biliary invasion ($p = 0.866$). Results were similar in those patients with or without vascular invasion respectively (40.4% vs 43.2%, $p = 0.65$). Also combined BVI failed to influence OS (39.2% vs 42.2%, $p = 0.856$).

Conclusion In our series, biliary invasion of CRLM does not affect overall survival rates in patients having liver resection.

Competing interests None declared.

PWE-147 COLORECTAL LIVER METASTASIS (CRLM): INCREASING ROLE OF LAPAROSCOPIC LIVER RESECTION—A SINGLE UNIT COMPARATIVE ANALYSIS

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Introduction Laparoscopic liver resection (LLR) is becoming increasingly used to reduce the morbidity of open liver resection. The aim of this study was to compare outcomes after LLR with that of open liver resection.

Methods From April 2007 onwards all patients who underwent either left lateral sectionectomy, left hemi-hepatectomy, segmentectomy and non-segmental resection for CRLM were identified from a prospectively maintained HPB database (open and LLR). Those having right hepatectomy were excluded from analysis as there were too few laparoscopic procedures for meaningful analysis. Comparisons between groups were made in terms of complications (graded using the Clavien-Dindo classification), duration of hospital stay and overall survival (OS). Statistical analysis was performed using Fisher Exact test for categorical variables, Mann–Whitney U test for non-parametric continuous variables and overall survival (OS) plotted with Kaplan–Meier curves (SPSS V.19).

Results 78 patients had LLR for various indications (colorectal $n = 43$, non-colorectal $n = 17$, benign $n = 18$). During the same period 94 patients had open equivalent procedures for CRLM (including 4 conversions from a lap procedure). Female patients were more likely to have a LLR compared to open (47% females, 24% males $p = 0.01$). Grade 3 and 4 complications were more seen in the open group (8.5% vs 4.7%), however grade 1 and 2 complications were slightly higher in the laparoscopic group (18.6% vs 17.1%). Median stay was 4 days in LLR group (range 1–23), 7 days (range 3–95) in open group, $p < 0.001$. R1 resections were less during second era of the study in LLR and comparable to the open group. At 3 years 91% of LLR and 72% of open group were alive. OS was similar ($p = 0.4$).

Conclusion Laparoscopic liver resection has shown benefits in terms of lower morbidity in our series when comparing it to equivalent open procedures. Long term follow-up will be needed to see if there is real advantage in OS and outcome.

Competing interests None declared.

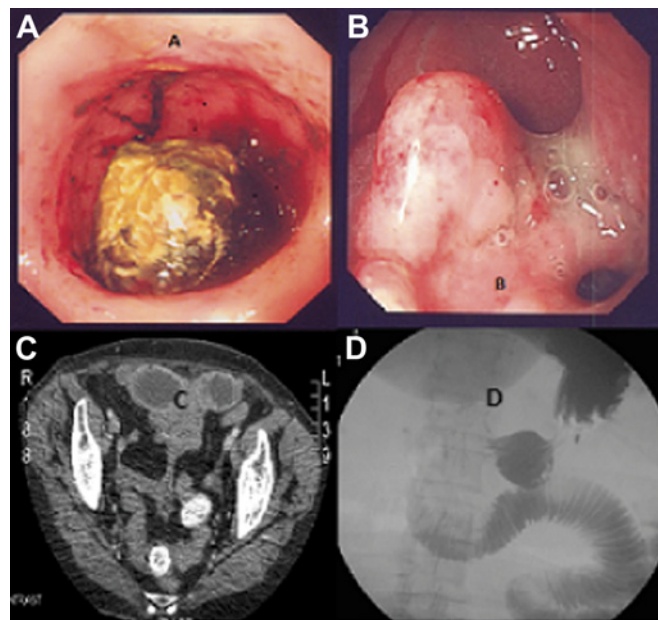
PWE-148 BOUVERET'S SYNDROME: LEAVING NO STONE UNTURNED

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Introduction Bouveret's syndrome is a clinically distinct form of gallstone ileus caused by the formation of a fistula between the biliary tract and duodenum. Early recognition and treatment can significantly improve morbidity and mortality. We present two cases that have been successfully treated at our hospital.

Methods Patient A is 71-year-old lady who was referred for gastroscopy after a CT abdomen that was performed to investigate her weight loss showed deformity of the duodenal cap. The gastroscopy showed a large gallstone obstructing the pyloric opening (Abstract PWE-148 figure 1A). Endoscopic removal was unsuccessful. She then developed vomiting and abdominal pain. Blood tests showed raised inflammatory markers and liver function tests. Repeat gastroscopy showed that the gallstone had passed down the pylorus, revealing a fistula opening in the duodenum (Abstract PWE-148 figure 1B). Diagnosis was confirmed on repeat CT abdomen which showed pneumobilia and two large gallstones that had migrated to the ileum (Abstract PWE-148 figure 1C). Patient B is 87-year-old lady who presented with a 1-week history of vomiting and haematemesis. Her blood tests on admission showed raised inflammatory markers with normal liver function tests. Gastroscopy showed oesophagitis, a duodenal ulcer and obstructing gallstone. Gastrograffin studies then showed that the gallstone had migrated to the proximal jejunum (Abstract PWE-148 figure 1D) and this was confirmed on CT abdomen.



Abstract PWE-148 Figure 1

Results Patient A was treated with a Ryle's tube insertion for stomach decompression, intravenous fluids, antibiotics and peripheral parenteral nutrition. She underwent a laparotomy, which showed distended fluid filled small bowel, with a large 5×3 cm gallstone lodged in the ileum. An ileal enterotomy was performed and the gall stone excised. Patient B was treated with a Ryle's tube insertion, intravenous fluids and peripheral parenteral nutrition. She underwent a laparotomy, in which a gallstone was found lodged in