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DETECTION OF PROTEOBACTER AND HELICOBACTER SPECIES IN BILE AND ASSOCIATION WITH HEPATOBILIARY DISEASE

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Background Bacteria from the *Proteobacter* genus, which contains the *Helicobacter* and *Campylobacter* genera, have been implicated in causing hepatobiliary diseases. Whether these bacteria truly colonise the biliary tract and are pathogenic in humans remain unknown.
Aims A prospective study of bile samples to: (1) detect *Helicobacter* species and other *Proteobacter* by PCR and culture; (2) correlate the presence of bile *Helicobacter* species and other *Proteobacter* with hepatobiliary diseases and with *H. pylori* in the stomach.
Methods Bile was obtained from patients during ERCP. PCR was used to amplify the 16S rRNA gene sequences of these bacteria, specifically the HS1/HS2 region (400 bp) for the *Helicobacter* genus, the E1/E2 region (969 bp) for the epsilon branch of the *Proteobacter* genus, and the urease B gene (400 bp) for *H. pylori*.
Results From 15 bile samples (seven males, mean age 67 years, table), *Helicobacter* species were detected in four patients (27%) and *Proteobacter* in 12 patients (80%). The urease B gene was negative in all patients. CLO test and/or antral biopsies for *H. pylori* were positive in five patients but did not correlate with the presence of *Helicobacter* in bile. Culture of bile directly failed to grow *Helicobacter* or *Proteobacter*. 11 of 12 patients with *Proteobacter* and four of four patients with *Helicobacter* species presented with either cholangitis or choledocholithiasis. Sequencing of the *Proteobacter* in one patient showed high sequence homology with *Comamonas acidovorans*. Sequencing of the *Helicobacter* species showed homology with hepatic species of *Helicobacter*, *H. nemestrinae* and *H. acinonychis*.
Conclusions These preliminary results show that *Helicobacter* species and other *Proteobacter* can be found in bile in humans by using molecular techniques. *Proteobacter* and *Helicobacter* species were commonly associated with choledocholithiasis and/or cholangitis. *Helicobacter* species found in bile are unlikely to be *H. pylori*.

Diagnosis	Number of patients	E1/2 +ve	HS1/2 +ve	Ure-B +ve
Choledocholithiasis and/or cholangitis	12	11	4	0
Portal LN causing CBD obstruction	1	0	0	0
Post operative bile leak	1	1	0	0
Stent removal	1	0	0	0

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DIFFERENTIAL DIAGNOSIS OF SOLITARY CYSTIC LESIONS OF THE PANCREAS BY ENDOSCOPIC ULTRASONOGRAPHY

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Differential diagnosis among solitary cystic lesions of the pancreas is often difficult using conventional imaging modality. The aim of this study is to investigate the value of endoscopic ultrasonography (EUS) for differential diagnosis for solitary cystic lesions of the pancreas.
Methods Twenty-eight patients with solitary cystic lesions of the pancreas were preoperatively examined by EUS. Ten cases were mucinous cystic tumor (MCT), eight cases were serous cystadenoma (SCA), and the others were pseudocyst (PC). The endosonographic pattern analysis for these three type diseases were retrospectively performed using histopathologic findings of the resected specimens.
Results Typical endosonographic pattern for MCT, SCA, and PC were multilocular large cystic type or monolocular cyst with mural nodule, multilocular small cystic type or multilocular mixed type, and monolocular cyst without mural nodule, respectively. According to these criteria, EUS correctly predicted as MCT in nine of ten patients (90%), SCA in seven of eight patients (87%), and PC in eight of ten patients (80%).
Conclusions EUS would differentiate solitary cystic lesions of the pancreas and contribute to surgical decision-making.

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DIRECT ANTIBIOTIC SUSCEPTIBILITY TESTING OF *HELICOBACTER PYLORI*: DOES IT HAVE A ROLE?

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Background Direct sensitivity testing (DT) on gastric biopsies has been suggested as an alternative to the conventional susceptibility testing technique (CT) which uses a standardised inoculum of a pure culture *Helicobacter pylori*. The objective of this study was to compare the performance of DT *in vitro* susceptibility testing of *H. pylori* with conventional susceptibility testing.
Methods Routine gastric biopsy specimens were collected from 31 patients presenting for endoscopy. Each collection was split into two portions. One portion was inoculated onto a selective agar plate immediately following specimen collection and DT conducted against metronidazole (MET) and clarythromycin (CLA). The results of DT were compared with routine CT conducted by the Australian National Helicobacter Reference Laboratory on the second portion of the same collection. The minimum inhibitory concentrations (MICs) of MET and CLA were determined by the Etest® strip (AB Biodisk, Solna, Sweden). Values of ≥ 8 and ≥ 2 mg/L were used to indicate *in vitro* resistance to MET and CLA, respectively.
Results Overall agreements between the interpretative results of DT and CT were 67.7 and 87.1% for MET and CLA, respectively. DT identified correctly only 50 and 85% of clinical strains with resistance to CLA and MET documented by the reference method. Positive and negative predictive values of the CLA and MET *in vitro* sensitivity detected by the DT were 92 and 55%, respectively.
Conclusions Predictive power of the DT is not sufficient to justify its use in routine clinical practice. Standardisation of the inoculum is essential to ensure accurate results of susceptibility testing.

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DOES ROUTINE USE OF ANAESTHETISTS FOR SEDATION INCREASE TURN-OVER TIME IN AN ENDOSCOPY UNIT?

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Aim To compare turn-over time for endoscopy lists with and without anaesthetists.
Design Retrospective audit of consecutive endoscopic procedures over two-time periods.