British Society for Digestive Endoscopy

The following papers were read at the meeting of the British Society for Digestive Endoscopy held at Aviemore on 30 September 1976.

Operative choledochoscopy using an experimental choledoscope

B. STERRY ASHBY Choleodochoscopy may be performed intraoperatively to retrieve stones from the CBD and ensure that the bile ducts are clear before closure, or postoperatively by passing the choleodochoscope along the T tube track to retrieve retained stones. After discussions with Olympus engineers an experimental choleodochoscope was developed specifically for intraoperative use. This instrument has a short distal segment (140 mm) which is fully flexible and controllable, and a semi-rigid proximal segment (180 mm). The instrument is 6-5 mm in diameter to accommodate a larger irrigation and operating channel. The entry valve to the channel is placed between the two segments, level with the abdominal skin surface during use. This instrument was used routinely for exploration of the common bile duct, and calculi removed from the ducts under direct vision with a balloon catheter passed via the choledochoscope. This was a less traumatic procedure than conventional 'blind' exploration with forceps and probes, and the CBD was closed primarily without a T tube drain. The incidence of complications and the postoperative stay in hospital were reduced. The main indications for operative choledochoscopy are retrieval of stones from the bile ducts, and checking the ducts are clear of stones and debris before closure. It does not replace operative cholangiography, and the common bile duct should not be opened only to perform cholecystectomy.

Technique and results of operative fiberoptic choledochoscopy in surgery for gallstones

D. FINNIS and T. ROWNTREE Retained stones in the common bile duct after surgical exploration are a continuing problem in surgery. In a collected series of 4037 cases undergoing cholecystectomy and exploration of the common bile duct the rate for retained stones was 4.3% (Glenn, 1974).

The fiberoptic choledochoscope is used to examine the full extent of the extrahepatic biliary tree and major intrahepatic bile passages, at the end of conventional surgical exploration. Retained stones are located and may be removed to achieve complete clearance of the biliary tree. In a three year period to May 1976, 297 cholecystectomies were carried out. Exploration of the common bile duct (ECBD) was necessary in 104 cases. In 68 of these the choledochoscope was used diagnostically to confirm complete removal of biliary calculi. Postoperative T-tube cholangiograms were carried out on all except six cases, and all of these 62 cases confirmed the findings at operative endoscopy. There were no cases of undetected stones missed on choledochoscopy. In four cases primary closure of the choledochotomy was carried out, and in the two remaining two cases radiology was omitted as the patients were pregnant. In the remaining 36 cases undergoing ECBD who were not examined endoscopically there were two cases of undetected stones demonstrated on postoperative T-tube cholangiography. There has been no increase in infection since the choledochoscope was introduced. The diagnostic cure of the choledochoscope at the end of conventional surgical exploration is quick, accurate and safe and can eliminate the problem of the surgically undetected common bile duct stone.

Diagnosis of the site of upper gastrointestinal haemorrhage in patients with established portal hypertension

C. J. MITCHELL and D. P. JEWELL Sixty patients known to have oesophageal varices and presenting with upper gastrointestinal haemorrhage during the previous 72 hours were submitted to endoscopy using either the Olympus GIF-D2 or the paediatric (GIF-P) instrument. A total of 75 endoscopies were performed using intravenous diazepam in a dose of 0-20 mg. The patients included 21 with alcoholic liver disease, 14 of whom were still consuming alcohol, and 14 with chronic active hepatitis, eight of whom were receiving corticosteroid therapy. Six patients had ingested aspirin within 72 hours of the haemorrhage. At endoscopy, all patients had oesophageal varices. In addition, at 31 examinations (41%) gastric or duodenal lesions were seen and these were frequently extensive. For the whole series, a site of active bleeding was found at 50 of 75 examinations (67%). However, the site of bleeding was determined in all 21 patients endoscoped within three hours of the last haemorrhage. Positive identification of the bleeding site was infrequent after 24 hours had elapsed. Variceal bleeding alone was seen in 40 of these 50 examinations (80%). Both varices and mucosal lesions were bleeding in four patients but only six patients were bleeding from mucosal lesions alone. Thus mucosal lesions were an uncommon cause of haemorrhage. On three occasions out of 45 examinations using the GIF-D2 instrument, variceal

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Clinical value of laparoscopy

P. BROWN, R. E. BARRY, and A. E. READ Laparoscopy has a valuable but underused place in the assessment of chronic liver disease and is especially valuable in the investigation of possible focal hepatic lesions such as malignancy. The procedure is simple, relatively safe, and in the case of malignancy may save the patient a general anaesthetic and laparotomy. The clinical value of laparoscopy in 150 consecutive patients with suspected hepatic disease from one gastroenterological unit is described. The main indications for laparoscopy were suspected chronic liver disease (52%) and suspected hepatic malignancy (29%). There were four (2.7%) minor and two (1.3%) major complications, the latter consisting of colonic and gastric perforations. One of these patients subsequently died, representing a mortality of 0-66%. In six (4%) cases inadequately were viewed because of adhesions from previous abdominal surgery. The major diagnoses reached by laparoscopy were cirrhosis (33%) and hepatic malignancy (25%), the latter diagnosis being confirmed histologically in each case. Another important diagnostic group were the 26 (16%) in whom the liver was normal, thus refuting a diagnosis of cirrhosis or malignancy, the latter patients being spared a laparotomy. In this series the major difficulties and hazards, including the one death, were experienced in those patients with previous abdominal surgery especially if there had been associated sepsis. Perhaps the greatest value of the procedure was that in 25% of cases a tissue diagnosis of malignancy was made and all these patients were spared a diagnostic laparotomy.
bleeding was restarted and prolonged unconsciousness was induced by diazepam in one patient. The paediatrician (30 examinations) was easily tolerated, required little or no sedation, and was associated with no complications. We therefore regard it as the instrument of choice.

Systematic recording of clinical, radiological, and endoscopic data with a system of date storage and retrieval of information suitable for a district general hospital

S. DEEN MOHAMED The problems of recording pertinent clinical, radiological, and endoscopic data (including endoscopic photographs) of patients subjected to fibreoptic endoscopies and of subsequent storage and ready retrieval of the information have been highlighted at several recent teaching sessions of the British Society of Digestive Endoscopy and several international conferences. A system evolved over the last few years at Wythenshawe Hospital meets with many of these difficulties and is based on the use of the following basic equipment: (1) dark room photographic lamp; (2) commercially available standard duplicator books; (3) Pen-FT camera; (4) 70 mm telephoto lens; (5) boxed filing cabinets; (6) modification of the Bristol endoscopy record card (Kalamazoo); (7) Kalamazoo fact finder. The system would be described by illustrative slides.

Significance of unabsorbable sutures in the gastric remnant

A. M. HOARE, and J. ALEXANDER-WILLIAMS

Unabsorbable sutures are often seen during endoscopy after operations for peptic ulcer. These stitches may be situated in the centre of an ulcer. It is not known if the sutures themselves cause these ulcers. Sutures also occur without an ulcer and controversy exists about their relevance to symptoms (Cotton et al., 1973). Two hundred and fifty patients were submitted to gastroscopy because of symptoms after surgery for peptic ulcer. Sutures were seen in 39, in eight of whom the sutures were situated in deep ulcers at the anastomosis. Mean peak acid output after pentagastrin was 20 mmol/h (15-26) for these patients with sutures in ulcers and 3 mmol/h (0-6) for matched patients with stitches and no ulcer. In matched patients with stomal ulcers without sutures the peak acid output was 26 mmol/h (16-26). Ulceration around a suture occurs only if the acid output is high. Sutures without ulcers do not cause symptoms and there is no need to remove them.


British Society for Digestive Endoscopy was used for the serosal layer. Eleven had dyspepsia and 21 were free of gastric symptoms. Sutures were found at endoscopy equally in the two groups, six with indigestion had stitches and 13 of those without symptoms. Ulceration around a suture occurs only if the acid output is high. Sutures without ulcers do not cause symptoms and there is no need to remove them.