REFERENCES

- 1 Hurlstone DP, McAlindon ME, Sanders DS, *et al.* Further validation of high-magnification chromoscopic-colonoscopy for the detection of intraepithelial neoplasia and colon cancer in ulcerative colitis. *Gastroenterology* 2004;**126**:376–8.
- 2 Kiesslich R, Fritsch J, Holtmann M, *et al.* Methylene blue-aided chromoendoscopy for the detection of intraepithelial neoplasia and colon cancer in ulcerative colitis. *Gastroenterology* 2003;**124**:880–8.
- 3 Rutter MD, Saunders BP, Schofield G, *et al.* Pancolonial indigo carmine dye spraying for the detection of dysplasia in ulcerative colitis. *Gut* 2004;**53**:256–60.
- 4 Gono K, Obi T, Yamaguchi M, *et al.* Appearance of enhanced tissue features in narrow-band endoscopic imaging. *J Biomed Opt* 2004;**9**:568–77.
- 5 Machida H, Sano Y, Hamamoto Y, *et al.* Narrow-band imaging in the diagnosis of colorectal mucosal lesions: a pilot study. *Endoscopy* 2004;**36**:1094–8.
- 6 Konerding MA, Fait E, Gaumann A. 3D microvascular architecture of pre-cancerous lesions and invasive carcinomas of the colon. *Br J Cancer* 2001;**84**:1354–62.
- 7 Kudo S, Tamura S, Nakajima T, *et al.* Diagnosis of colorectal tumorous lesions by magnifying endoscopy. *Gastrointest Endos* 1996;**44**:8–14.
- 8 Nakayoshi T, Tajiri H, Matsuda K, *et al.* Magnifying endoscopy combined with narrow band imaging system for early gastric cancer: correlation of vascular pattern with histopathology (including video). *Endoscopy* 2004;**36**:1080–4.
- 9 Kara MA, Peters FP, Rosmolen WD, *et al.* High-resolution endoscopy plus chromoendoscopy or narrow-band imaging in Barrett's esophagus: a prospective randomized crossover study. *Endoscopy* 2005;**37**:929–36.
- 10 von Herbay A, Herfarth C, Otto HF. Cancer and dysplasia in ulcerative colitis: a histologic study of 301 surgical specimen. *Z Gastroenterol* 1994;**32**:382–8.

EDITOR'S QUIZ: GI SNAPSHOT

Unusual findings in the biliary tract

Robin Spiller, Editor

Clinical presentation

A 65 year old woman consulted a local clinic because of elevated liver enzymes recognised on annual routine check. Dilation of the bile duct along with a cystic mass in the left lobe of the liver was then demonstrated on ultrasound. She was referred to our hospital for further evaluation. Laboratory examination demonstrated mild elevation of biliary tract enzymes (glutamate-oxaloacetate transaminase 36 IU/l (normal range 14–32); glutamic pyruvic transaminase 20 IU/l (normal range 9–25); alkaline phosphatase 315 IU/l (normal range 109–312); γ -glutamyl transpeptidase 169 IU/l (normal range 10–28); and total bilirubin 1.0 mg/dl (normal range 0.2–1.2)). Levels of tumour markers were within normal limits (α -fetoprotein 6 (normal range 1–7); carcinoembryonic antigen 3.2 ng/ml (normal range 0.6–3.8); cancer antigen 19–9 U/ml (normal range 1–37)). Endoscopic retrograde cholangiography showed filling defects at the upper part of the extrahepatic bile duct, and opacification of the left hepatic bile duct was insufficient (fig 1). There was mucin oozing through a bulging papilla of Vater.

Question

What do these findings show?

See page 1439 for answer

This case is submitted by:

N Ueno

Division of Endoscopy, Yokohama City University Hospital, Yokohama, Japan

Y Kawaguchi

I Kawana

S Umemura

Second Department of Internal Medicine, Yokohama City University, School of Medicine, Yokohama, Japan

Figure 1 Endoscopic retrograde cholangiogram showing filling defects in the dilated extrahepatic bile duct. Pool-like opacification was observed in the left intrahepatic duct.

Correspondence to: Dr N Ueno, Division of Endoscopy, Yokohama City University Hospital, 3-9, Fukuura, Kanazawa-ku, Yokohama 236-0004, Japan; nu-1952@io.ocn.ne.jp

doi: 10.1136/gut.2005.086520