Villous adenoma of the ampulla of Vater

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Summary: A case of villous adenoma of the ampulla of Vater in a 40 year old male is described. The clinical significance of this rare tumour is discussed and the relevant literature reviewed.

Introduction

Villous tumours of the duodenum are rare neoplasms of the upper gastrointestinal tract. (Everett *et al.*, 1981). Three cases only have been reported arising specifically from the ampulla of Vater, all with invasive carcinoma (Meltzer *et al.*, 1966; Dayal *et al.*, 1972). Frank malignancy in all villous tumours of the duodenum is found in 21% of cases (Neuman *et al.*, 1984). Our recent observation of a case of villous adenoma of the ampulla prompted us to review relevant publications.

Case report

A 40 year old male was admitted in March, 1984 with complaints of progressive jaundice, intense pruritus and weight loss for 3 months. There was no history of abdominal pain, bleeding or fever. A smooth, non-tender liver, 5 cm below the right costal margin and a tense gall bladder were felt. Serum bilirubin was 103 $\mu\text{mol/l}$. An ultrasound scan showed markedly dilated intrahepatic biliary radicals, gall bladder and common bile duct. The pancreatic head was normal. On endoscopy a polypoidal growth without ulceration was found around the papilla. At operation, a soft polypoidal mass, 3 cm in diameter was found overlying the ampulla. Frozen section from the mass did not show malignant change. Transduodenal polypectomy and sphincteroplasty was carried out. The specimen grossly measured 3 $\times$ 2 $\times$ 1.75 cm with fine papillary fronds on the outer surface (Figure 1). On microscopic examination, typical features of a benign tubulovillous adenoma were present. The stalk was free of tumour and features of *in situ* carcinoma were absent.

At follow-up after 6 months, the patient had gained

Figure 1 Macrograph of the polypoidal growth showing velvety surface.

weight, jaundice had disappeared and endoscopy showed no recurrence.

Discussion

Although villous tumours of the colon and rectum are not uncommon, those of the small intestine are very rare. Villous tumour of the duodenum was first documented as a case report by Golden (1928). Since then sporadic case reports have appeared; to date there are 53 published cases (Mir-Madjlessi *et al.*, 1973; Kutin *et al.*, 1975; Schulten *et al.*, 1976; Everett *et al.*, 1981; Neuman *et al.*, 1984).

Diagnostic difficulty arises because of the ill-defined nature of the presenting symptoms. Neuman *et al.* (1984) have suggested that 27% of patients present with a gastrointestinal bleed, 24% with gastric outlet obstruction, 19% with vague upper abdominal pain and 24% with obstructive jaundice. The latter is due to the stricture and location of the tumour which can cause obstruction at the ampulla. It is also interesting to note that 90% of such patients with jaundice show

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Table I Villous tumours of the ampulla of Vater

Authors	Age and sex	Presenting features	Preoperative diagnosis	Pathology	Treatment
Meltzer <i>et al.</i> , 1966	69 M	Vomiting, weight loss, jaundice	X-ray filling defect	Papillary tumour extending into wall of duodenum Invasive	Whipple's operation
Meltzer <i>et al.</i> , 1966	60 M	Weakness, anorexia, jaundice	Filling defect with mucosal distortion, Cholangiogram showed ampullary obstruction	Papillary tumour occluding common bile duct Invasive	Excision
Dayal <i>et al.</i> , 1972	56 F	Epigastric pain weight loss No jaundice	Filling defect with spiculations (Soap-bubble)	Sessile polyp 5 × 2.7 × 1.7 cm Invasive.	Whipple's operation
Present case	40 M	Jaundice, weight loss	Endoscopy showed polypoid growth	Sessile polyp 3. × 2. × 1.75 cm Benign	Excision

evidence of malignancy at histopathology (Neuman *et al.*, 1984). Endoscopic methods have improved diagnostic accuracy. Gastroduodenoscopy will demonstrate about 90% of the lesions, the rest consisting of tumours in the fourth part of the duodenum. The characteristic 'soap-bubble' appearance on X-ray of the stomach and duodenum has been referred to by various authors (Meltzer *et al.*, 1966; Bremer *et al.*, 1968; Everett *et al.*, 1981) but is not an invariable finding.

The pathology of villous adenomas of the duodenum is similar to those of the colon. Slender fibro-vascular cores are lined by a neoplastic epithelium. Since malignant potential is high, multiple sections including from the stalk need to be taken to exclude focal occult carcinoma.

Villous tumours of the ampulla are extremely rare. Three previous cases (Table I) showed evidence of malignancy on microscopic examination. Obstructive

jaundice due to the tumour is invariable. However, the case reported by Dayal *et al.*, (1972) did not have jaundice, though a drip infusion cholangiogram at the second admission of the patient showed a block at the distal end of the common bile duct. In the case reported here, obstructive jaundice was the presenting feature. Simple polypectomy and sphincteroplasty was done as the frozen section did not show features of malignancy. In frank malignant lesions radical surgery such as pancreatico-duodenectomy is the treatment of choice.

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