

Symptomatic accessory lobe of liver with a review of the literature

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Summary

An accessory lobe of the liver with long well defined mesentery presenting as recurrent pain in abdomen in a Hindu female is described. This is the seventh case recorded in English literature. The embryological genesis of this anomaly and the possibility of pre-operative diagnosis by various techniques is discussed.

ANOMALIES of the liver are rare. Variations in the size and configuration of both lobes are common. Accessory lobes are extremely rare and may be found incidentally during an operation or a post-mortem examination. They usually present as small tongue-like projections from the surface of the liver in the vicinity of the gall bladder fossa or, very rarely, as isolated lobes either connected to the liver by a pedicle or having a separate mesentery containing blood vessels and bile ducts.

So far, six cases of pedunculated accessory lobes of the liver with symptoms have been described in English literature and all were in women. This is the seventh case.

Case report

A 32-year-old Hindu married woman had a 4-year history of repeated attacks of epigastric pain, dragging sensation in the back and nausea. The duration of the attacks varied from a few minutes to a few hours. She had recently (3 weeks) had a comparatively severe attack.

She had been investigated for cholecystitis and duodenal ulcer and the plain X-ray of the abdomen, oral cholecystogram and barium meal studies had been normal. An exploratory laparotomy revealed an accessory lobe of the liver, attached by a well defined triangular mesentery to the gastro-hepatic ligament (Fig. 1). Compared to the rest of the liver, it was darker and multiple bands were seen on its surface. It was freely mobile and could be twisted. Branches from the common hepatic artery and the portal vein traversed along the inferior border of the mesentery, and the bile duct and the hepatic vein ran

along its superior border. The accessory lobe was excised. The patient has had no symptoms for the last year.

The excised lobe was reddish brown and measured $5 \times 4 \times 2$ cm (Fig. 2). The cut surface had the appearance of normal liver. Microscopically, it showed normal architecture. Kupffer cells contained haemosiderin pigment. There were foci of periportal round cell infiltration. The hilum showed proliferating bile ducts, dilated lymphatics, blood vessels and increased fibrous tissue (Fig. 3).

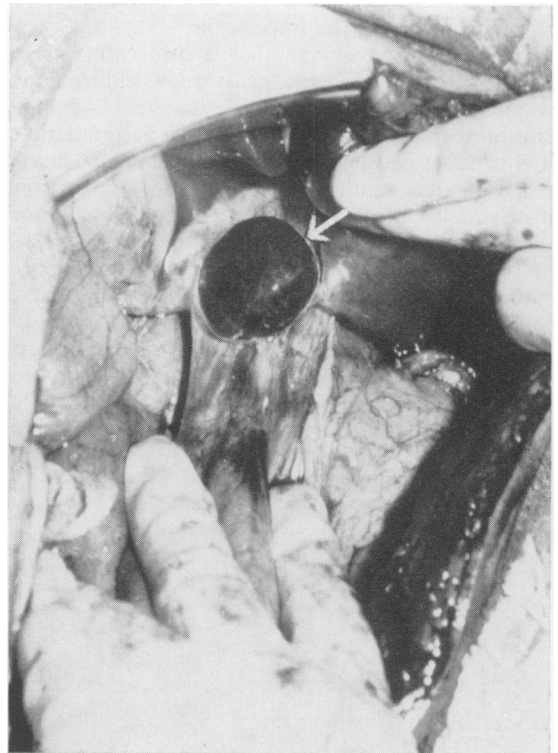


FIG. 1. The congested accessory lobe, attached by a mesentery to the gastrohepatic ligament, is indicated by an arrow.

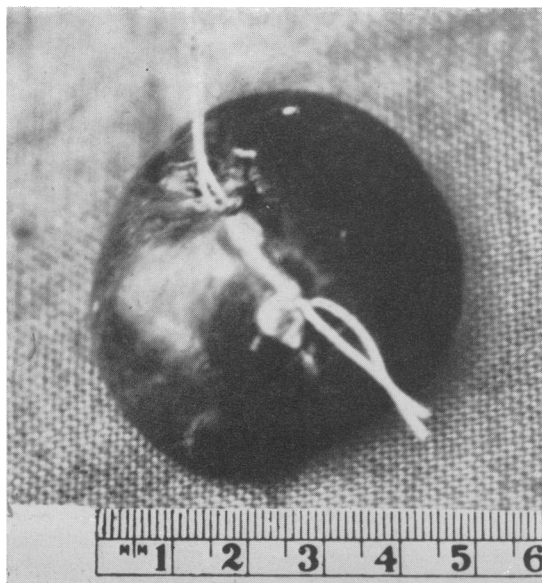


FIG. 2. The excised accessory lobe.

Discussion

There was circumstantial evidence to suggest torsion of the lobe as described by Llorente and Dardik (1971). In this case, there was a well defined, twistable mesentery, darker in colour, with fibrous bands over its surface, haemosiderin pigment in Kupffer cells, increased fibrous tissue and congested vessels in the hilum which suggest that symptoms were due to repeated torsion of the lobe. In addition, the patient has been asymptomatic for the last year. In this way the present case differs from the reported cases where exploration was done during acute episode and the torsion of the accessory lobe was seen at operation (Cullen, 1925; Lottee and Madier,

1960; Watson and Lee, 1964; Levi, Creque and Cinque, 1969).

The exact origin of the accessory lobe of the liver in man is still unknown. The accessory liver tissue could be formed by the displacement of the primitive rudiment of the organ (McGregor, 1950), or by persistence of the mesodermal septa during proliferation



FIG. 3. Photomicrograph of accessory lobe of liver (H and E $\times 100$).

TABLE 1. Summary of the reported cases (all female) of accessory lobe of the liver

Reference	Age (years)	Pre-operative diagnosis	Causes for symptoms	Size of lobe (cm)	Pathology
Fisher (cited by Cullen, (1925)	45	Appendicitis	Torsion	6 \times 8 \times 3	Normal and fibrous tissue with haemorrhagic areas
Lottee and Madier (1960)	75	Cholecystitis/perforated ulcer	Torsion	Not stated	Haemorrhagic necrosis
Watson and Lee (1964)	56	Not stated	Torsion	Length 4	Necrosis
Levi, Creque and Cinque (1969)	23	Tubo-ovarian/appendicular abscess	Torsion	Diameter 23	Necrosis
Llorente and Dardik (1971)	74	Retroperitoneal tumour	Traction/compression	13 \times 19 \times 9	Post-necrotic cirrhosis
Omanik and Jablonsky (1972)	29	Mesenteric cyst	Torsion	13 \times 12 \times 7	Steatosis and haemorrhagic infarction
Pujari and Deodhare (present report)	32	Exploratory laparotomy	Torsion	5 \times 4 \times 2	Dilatation, and congestion of portal tracts and central veins

of the hepatic anlage (Fraser, 1952) or by further branching of the foregut diverticulum (Ashby, 1969).

Accessory lobes may be attached to the liver by a pedicle of the liver tissue or by a mesentery (Johnstone, 1965). For the accessory lobe to be viable it should have the hepatic artery, hepatic vein, portal vein and bile duct, which usually communicate through the liver, but occasionally may have extra-hepatic connection as in the present case.

All reported cases of this phenomenon, and their symptoms, are summarized in Table 1.

Late presentation is due to gradual worsening of the circulation in the lobe. All the six cases reported were diagnosed at operation. Pre-operative diagnosis can be made by using one or more techniques of pneumoperitoneum, percutaneous hepatic cholangiography, splenic portography, regional arteriography, coeloscopy and scintillation scanning (Omanik and Jablonsky, 1972; Llorente and Dardik, 1971).

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Chronic hepatitis in polymyalgia rheumatica

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Summary

A review of the literature relating hepatic abnormalities with the giant cell arteritis, polymyalgia rheumatica syndrome is presented. A case of polymyalgia rheumatica with biochemical and histological abnormalities of the liver is described. It is suggested that a more detailed investigation of liver function should be made in patients with this syndrome where reasonably indicated.

Introduction

RECENTLY, attention has been focused on the association between polymyalgia rheumatica, giant cell arteritis and an elevated serum alkaline phosphatase with, or without, other evidence of hepatic dysfunction (Hall and Hargreaves, 1972; Glick, 1972; Dickson *et al.*, 1973; Long and James, 1974). These findings have raised the possibility of an

association between liver disease and these two disorders. Long and James (1974) reported finding granulomatous hepatitis in a single case of polymyalgia rheumatica. A case with different histopathological changes in the liver is now reported.

Case report

A 77-year-old woman with a long history of psoriasis, presented 8 years ago with malaise and severe pain in the muscles of the neck, back and proximal limb muscles. On examination, these muscles were tender to palpation and there was no evidence of psoriatic arthropathy. X-rays of the joints and chest were normal, the haemoglobin was 11 g/100 ml and the ESR 100 mm in 1 hr. Serological tests for gout and rheumatoid arthritis were negative. A diagnosis of polymyalgia rheumatica was made. The symptoms abated with oral prednisone therapy but the ESR remained elevated. Over the next 6 years she remained well apart from exacerbations of the disease when steroid withdrawal was

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