Inflammatory pseudotumour of the liver: a rare complication of diverticulitis?

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INTRODUCTION

Despite advances in radiological imaging, space-occupying lesions of the liver occasionally defy all attempts at pre-surgical diagnosis. We present a case of a rare inflammatory pseudotumour of the liver.

DISCUSSION

Inflammatory pseudotumours are histopathologically part of a heterogenous entity that have been found in practically every site in the body (Chan, 1996). Forty-seven cases affecting the liver have been reported (Shek et al, 1993). They usually present with abdominal pain and investigation reveals a space-occupying lesion in the liver, with radiological features suggesting a hepatocellular carcinoma.

Important differential diagnosis includes metastatic tumour, liver abscess and, less commonly, sarcoma. The mean age of incidence is 37 years (range 10 months to 83 years). The size of the tumour varies from 1–20 cm.

CASE REPORT

A 60-year-old diabetic male was referred with a 4-month history of right upper quadrant pain and weight loss. Previous history was uneventful, although 2 years before he had been diagnosed with diverticular disease of the sigmoid colon on barium enema when he presented with abdominal pain. Ultrasound demonstrated a 2 cm lesion in the left lobe of the liver which was thought to be a haemangioma. Hepatitis serology, α feto-protein, carcinoma embrionic antigen and carcinoma antigen 19/9 were all normal. His symptoms persisted and 2 months later a computer tomogram (CT) was performed which showed a 4 cm solid lesion in the same site. CT-guided biopsy of this on two occasions were inconclusive but on subsequent imaging, the lesion was growing in size and the patient was therefore referred for surgery. Before surgery he underwent a CT aorto-portogram (*Figure 1*).

At laparotomy a 16 cm tumour in the left lobe of the liver was found which was invading the anterior abdominal wall, central tendon of the diaphragm and transverse colon. It was resected in continuity with these structures to provide a surgically curative margin. A 2 cm mass was found in the mesentery at the ileo-caecal junction and the colon was therefore resected proximally to the terminal ileum with an end-to-side ileo-colic anastomosis. Peroperatively the patient had an inferior myocardial infarction, which resulted in complete heart block and required on-table pacing. Postoperatively he developed acute renal failure which necessitated haemodialysis. He recovered from these complications and is now well.

Histology of the specimen showed a 1.3 kg solid mass with necrotic areas. On microscopy it contained moderately cellular collagenous fibrous tissue with a patchy infiltrate of mature chronic inflammatory cells and abscesses with large colonies of bacteria. Culture of these colonies grew *Bacteroides fragilis*. There was a perforated solitary caecal diverticulum with abscess formation in the mesentery.

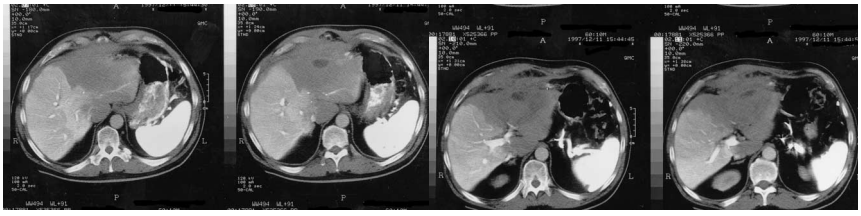

Figure 1. Computed tomography aorto-portogram. This demonstrates a solitary large mass involving the left lobe of the liver extending to the anterior abdominal wall and involving the transverse colon.

The aetiology is unknown but it is regarded as a benign reactive inflammatory condition. They consist histologically of a highly variable ad-mixture of benign spindle cells, chronic inflammatory cells and collagen fibres. Most cases (28/47, 60%) have been reported from the Far East, with the majority (31/47, 66%) undergoing successful resection. A few cases responded completely to steroids.

Occasionally microorganisms such as Gram-positive cocci have been identified or cultured from some tumours and in others obliterating phlebitis has been noted, leading to the hypothesis that infection could have developed in the liver as a result of haematogenous migration of microorganisms via the portal vein.

CONCLUSIONS

In patients with a solid space-occupying lesion of the liver with negative hepatitis serology and tumour markers, in whom metastasis is not suspected and the results of liver biopsy inconclusive, the diagnosis of inflammatory pseudotumour may be considered. We believe this to be the first description of a rare complication of diverticulitis. HM

Chan JKC (1996) Inflammatory pseudotumor: a family of lesions of diverse nature and etiologies. *Adv Anatomic Pathol* **3:** 156–71

Shek TWH, Ng IOL, Chan KW (1993) Inflammatory pseudotumor of the liver; report of four cases and review of the literature. *Am J Surg Pathol* **17:** 231–8

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