Inflammatory Pseudotumours of the Liver - Role of Dynamic MRI Scan and Surgical Exploration

Sir,

Abstract
Inflammatory pseudotumours of the liver are extremely rare benign lesions. They were first described by Pack and Baker in 1953 [1]. They usually present with raised inflammatory markers and non-specific abdominal symptoms. Most of these lesions are picked up incidentally on ultrasound scans. Diagnosis of these lesions poses a dilemma and a challenge due to their radiological similarities to other liver lesions such as hepatocellular carcinoma HCC. In this article we describe our experience in its diagnosis and management.

Case Report
A 32 year old male presented with a short history of vague upper abdominal pain, fever and night sweats. His ESR was 80, the rest of his blood tests were normal. Examination was normal apart from a mildly tender epigastric area. Viral hepatitis screening was negative for antibodies. Ultrasound scan of the abdomen showed a left liver lesion. CT scan and a dynamic MRI scan of his abdomen were performed for further assessment and the decision was to surgically explore this via an upper midline laporatomy.
The left liver lesion was confined to the left lateral segment and a standard segmentectomy was performed. Pathological examination of the resected liver lesion was 4mm from the surgical margin. The adjacent liver parenchyma showed lobular aggregates of neutrophils and a mild portal chronic inflammatory infiltrate with no fibrosis. There were abundant inflammatory cells including plasma cells, lymphocytes and occasional eosinophils mixed with abundant spindle cells. No abscess formation or granulomas were identified. Plasma cells were polyclonal (positive for Kappa and Lambda light chain). Spindle cells were smooth muscle actin (SMA) positive and ALK negative. Findings were interpreted as an inflammatory pseudotumour. He had an uneventful post-operative course and he was discharged from hospital day ten post â operatively.

Discussion
Liver inflammatory pseudotumours IPTs are rare benign tumour-like lesions of unknown aetiology. Patients usually present with raised inflammatory markers and vague symptoms. Suggested pathogenesis includes infection, aberrant immune reaction and occlusive phlebitis of the hepatic vein. Radiological diagnoses of IPTs are difficult. They often present as an irregular shaped heterogeneous mass on CT scans resembling hepatocellular carcinoma. Dynamic MRI scans show features characteristic of IPTs. Peripheral enhancement is seen in the portal-venous and delayed phases due to extravascular accumulation of the contrast medium and none occurs in the arterial phase. This gives a distinguishing feature when compared to HCC. In addition, most IPTs are hyper-intense on T2 weighting. Yet, in some cases more coagulative necrosis than inflammatory cells are present and hence they may be isointense [2-4].

Most cases have been reported following surgical resection and diagnosis based on histological findings. Fibrous stroma, chronic inflammatory infiltrate with a predominance of plasma cells and the absence of atypical features are the most characteristic features. There are histological similarities to other lesions such as inflammatory fibrosarcoma, inflammatory myofibroblastic tumour and follicular dendritic cell tumour. Thus full excision is recommended as biopsies are often misleading and benign elements can be interpreted as a sampling error.

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