Abdominal radiology

Primary macronodular hepatosplenic tuberculosis: two cases with US, CT, and MR findings

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Abstract. We describe two cases of primary macronodular hepatosplenic tuberculosis (TB) with US, CT, and MR findings. The clinical presentation of the two patients were not alike. Whereas the first presented with a long indolent course, the second presented with an acute picture. For the first patient TB was not suspected until laparotomy; for the second the diagnosis was made by clinical evaluation with the aid of US and CT, and confirmed by biopsy. Use of MR did not add to the diagnosis.

Key words: Hepatosplenic tuberculosis — US — CT — MR

Introduction

Tuberculosis (TB) of liver and/or spleen is usually seen in miliary TB [1]. Isolated macronodular hepatosplenic TB is rare. Despite the fact that there are some previous reports with US and CT findings [2–6], there is only one with MR findings [7]. We describe US, CT, and MR findings of two such cases before and after treatment.

Patients and methods

Case reports

Case 1

A 60-year-old woman presented with mild abdominal discomfort for at least 5 years duration. The pain was not associated with any other symptom and was suggestive of irritable colon. There was no systemic symptom. Physical examination revealed a slender, otherwise healthy woman with no apparent abnormality. Red blood cell sedimentation rate was 20 mm/h, and all other biochemical and hematologic values were normal. Urine examination was normal. Stool-guia was negative. Chest X-ray revealed clear lung fields. Upper gastrointestinal (GI) and large bowel series revealed no abnormality. Abdominal US showed multiple hypoechoic areas distributed throughout the liver and spleen. An examination of the abdomen demonstrated multiple nonuniform hypodense lesions (30–50 HU). After IV contrast administration some lesions showed slight peripheral enhancement. Paraortic, portal, splenic adenomegalies were not detected (s. Fig. 1 and 2). An MR examination showed multiple hypointense nodules on spinecho (SE) T1WI (TR/TE: 500/15 ms) at the same localization seen on CT (Fig. 3). On SE T2WI (TR/TE: 2100/100 ms), these lesions were seen hyperintense relative to surrounding normal liver parenchyma (Fig. 4). A CT examination of the thorax revealed no abnormality. All of the tumor markers were negative in serum. Laparoscopy was performed: There was no peritoneal abnormality and no lesion was seen on the liver surface. The decision to perform diagnostic laparotomy was made. In laparotomy no apparent lesion was found. Needle biopsy of liver was performed from multiple sites corresponding to the lesions and splenectomy was performed. Postoperative course was uneventful. Histopathologic examination of spleen sections showed many well-developed tubercules composed of epitheloid histiocytes and giant cells surrounded by lymphocytes. Some tubercles had caseous centers and some showed hyalinization (Fig. 5).

In the liver sections tubercules with many giant cells were observed. Most of them showed hyalinization (Fig. 6).

She had neither a history of TB nor symptoms such as fever, night sweats, malaise, and weight loss. There was no pulmonary symptom. In reexamined chest X-rays...