INTRODUCTION

Metastatic carcinoma that involves the spleen is usually a manifestation of widely disseminated disease involving multiple organs (1,2). Splenic metastases are present in 0.8% of disseminated hepatocellular carcinomas (HCC) (3-5). But solitary splenic metastases are very rare. Here, we present a case of HCC with splenic metastases without any other organ involvement.

CASE REPORT

A 55 year old man with malaise, left shoulder pain and urine darkness for 4 months admitted to our hospital. He was complaining from easy bruising and itching for 3-4 years. He denied any previous operation, transfusion, jaundice or hepatic disease. On physical examination, his scleras' were icteric and left lobe of the liver was palpable and tender. Echymotic and excoriated skin lesions were present throughout the body.

Laboratory values were as follow: haemoglobin: 12.6 gr/dl, leucocyte: 6800/γl, platelet: 79000/γl, ESR: 70 mm/h, prothrombin time: 16.1 sec, fibrinogen: 2.51 gr/L, activated partial thromboplastin time: 39.2 sec, AST: 162 U/L, ALT: 141 U/L, total protein: 6.6 gr/dl, albumin: 2.7 gr/dl, total bilirubin: 2.5 mgr/dl, direct bilirubin: 1.7 mgr/dl, alkaline phosphatase: 631 U/L, GGT: 187 U/L, HBs Ag (+), Anti Hbc IgG (+), Anti HBe (+), Anti HCV (-), Anti HDV (-), AFP: 19,36 ng/ml and CEA: 6 ng/ml.

Ultrasonography showed an enlarged liver with irregular edges and heterogenic echo pattern involving multiple, round, centrally hyperechogenic, peripherically hypoechogenic solid masses. The largest one was 2 cm in diameter (Figure 1). There was grade I splenomegaly with a 4x3 cm. solid mass at the upper pole similar to the hepatic masses in appearance (Figure 2). Other abdominal organs and structures were normal.

At the upper gastrointestinal endoscopy we detected small oesophageal varices and portal hypertensive gastropathy. The contrast enhanced tomographic examination of the abdomen showed a normal appearing liver and a 4x3 cm. centrally and peripheric hypodense mass with regular contours at the frontal portion of the spleen (Figure 3). Other abdominal organs and structures
were normal. Thorax tomography was normal except the pleural thickness. The bone scintigraphy was normal.

The sonography guided fine needle aspiration biopsy of the hepatic masses was reported as hepatocellular carcinoma on the ground of chronic hepatitis (Figure 4). We also obtained sonography guided fine needle aspiration biopsies twice from splenic mass, but pathologist could not detect any malign cell. Then the patient was referred to an oncology clinic.

**DISCUSSION**

Metastatic carcinoma to the spleen is considered to be rare and usually seen with disseminated disease involving more than five organs, reported in 2.3-7.1% of all carcinoma cases (5-7). The most frequent primaries were melanoma and tumours of the ovary, lung, breast and colon (1,5). Imada et al. found that the rate of splenic metastasis per tumour was highest in ovarian cancer (50%) and lowest in HCC (0.8%)(6). Splenic metastases from HCC were reported in 0.7-0.8% of disseminated cases (3,4,8-13).

The only extrahepatic site that we could find in our case was spleen. Also, the AFP was minimally elevated, but this is a common finding, because extremely elevated levels (above 300-500 ng/ml) are present in only 50% HCC's of low incidence populations.

Imada et al. showed that the splenic metastatic masses originating from liver were similar to the hepatic ones sonographically (6). In our case, there was multiple hepatic masses detected by sonography, but could not demonstrated with contrast enhanced tomography. The splenic mass that was similar to the hepatic ones sonographically was detected by tomography. These
findings imply that, although newly developing techniques, sonography remains as one of the most useful techniques in evaluating abdominal pathology.

To our knowledge, less than 100 cases of solitary splenic metastasis have been reported to date. Lung, stomach, pancreas, colon, ovary and breast malignancies are the most commonly reported origins for solitary splenic metastasis. Only 5 cases of solitary splenic metastases from HCC were reported in the literature. So this case was one of the rare cases of solitary splenic metastasis from HCC.

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REFERENCES