

Solitary Splenic Metastasis from Hepatocellular Carcinoma

Hüseyin Alkim¹, Canan Alkim², Nurgül Şaşmaz³, Gülay Temuçin³

¹Bakırköy Dr. Sadi Konuk Training and Research Hospital, Gastroenterology Department, İstanbul

²Şişli Etfal Training and Research Hospital, Gastroenterology Department, İstanbul

³Turkey High Specialty Hospital, Gastroenterology Department, Ankara

ÖZET

Hepatoselüler karsinom kaynaklı soliter dalak metastazi

Hepatoselüler karsinom kaynaklı dalak metastazi oldukça nadirdir ve beş veya daha fazla organa yayılımın olduğu dissemine hastalıkta görülür. Başka bir organa yayılımı olmayan soliter dalak metastazlı bir hepatoselüler karsinom olgusunu sunuyoruz.

Anahtar kelimeler: Hepatoselüler karsinom, dalak metastazi

ABSTRACT

Solitary splenic metastasis from hepatocellular carcinoma

Splenic metastasis from hepatocellular carcinoma is very rare and seen with disseminated disease in which five or more other organ involvement was present. We report a hepatocellular carcinoma case with solitary splenic metastases without any other organ involvement.

Key words: Hepatocellular carcinoma, splenic metastases

Bakırköy Tıp Dergisi 2011;7:164-166

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

Yazışma adresi / Address reprint requests to: Hüseyin Alkim
Bakırköy Dr. Sadi Konuk TRH, Department of Gastroenterology, İstanbul

Telefon / Phone: +90-212-414-7298

Elektronik posta adresi / E-mail address: hualkim@e-kolay.net

Geliş tarihi / Date of receipt: 8 Mart 2011 / March 8, 2011

Kabul tarihi / Date of acceptance: 6 Eylül 2011 / September 6, 2011



Figure 1: Sonogram of the liver showing hepatic masses with the largest one (TUMOR) near to the gall bladder (GB).

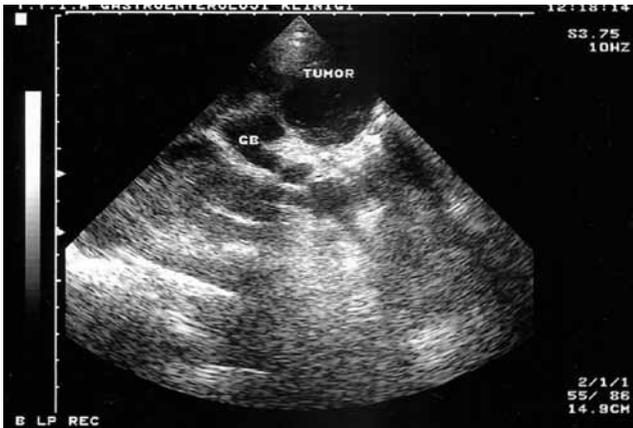


Figure 2: Sonogram of the spleen showing mass at the upper pole.



Figure 3: Tomographic photograph of the abdomen demonstrating mass within the spleen.

were normal. Thorax tomography was normal except the pleural thickness. The bone scintigraphy was normal.

The sonography guided fine needle aspiration biopsy

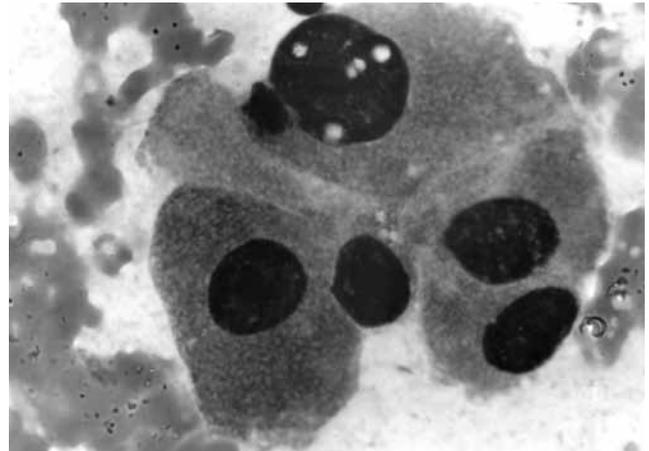


Figure 4: Microscopic photographs of liver mass aspirate stained with May-Grünwald-Giemsa stain showing hepatoma cells with prominent nucleoli, granular cytoplasm and mitosis.

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.

Acknowledgement:

We gratefully thanks to Prof. Dr. Yıldırım Songür for his great help in the provision of Japanese manuscripts and to Mr. Can Erkin for his perfect translation of these Japanese manuscripts.

REFERENCES

1. Mainprize KS, Berry AR. Solitary splenic metastasis from colorectal carcinoma. *Br J Surg* 1997; 84: 70.
2. Thomas SM, Fitzgerald JB, Pollock RE, Evans DB. Isolated splenic metastases from colon carcinoma. *Eur J Surg Oncol* 1993; 19: 485-490.
3. Nakashima T, Okuda K, Kojiro M, et al. Pathology of hepatocellular carcinoma in Japan. 232 consecutive cases autopsied in ten years. *Cancer* 1983; 51: 863-877.
4. Yamamoto R, Yamamoto S, Fukushima K, et al. Splenic metastasis of hepatocellular carcinoma. *Gan No Rinsho* 1986; 32: 1486-1490.
5. Comperat E, Bardier-Dupas A, Camparo P, Capron F, Charlotte F. Splenic metastases: clinicopathologic presentation, differential diagnosis, and pathogenesis. *Arch Pathol Lab Med* 2007; 131: 965-969.
6. Imada H, Nakata H, Horie A. Radiological diagnosis of splenic metastasis and its prevalence at autopsy. *Nippon Igaku Hoshasen Gakkai Zasshi* 1991; 51: 498-503.
7. Marymont JH, Gross S. Patterns of metastatic cancer in the spleen. *Am J Clin Pathol* 1963; 40: 58-66.
8. Fujimoto H, Murakami K, Nosaka K, Arimizu N. Splenic metastasis of hepatocellular carcinoma. Accumulation of Tc-99m HDP. *Clin Nucl Med* 1992; 17: 99-100.
9. Horie Y, Suou T, Hirayama C, Nagasako R. Spontaneous rupture of the spleen secondary to metastatic hepatocellular carcinoma: a report of a case and review of the literature. *Am J Gastroenterol* 1982; 77: 882-884.
10. Fujimoto H, Murakami K, Ozawa K, et al. Huge splenic metastasis from hepatocellular carcinoma: a case report. *Rinsho Hoshasen* 1990; 35: 1439-1442.
11. Cavanna L, Lazzaro A, Vallisa D, Civardi G, Artioli F. Role of image-guided fine-needle aspiration biopsy in the management of patients with splenic metastasis. *World J Surg Oncol* 2007;5: 13.
12. Lam KY, Tang V. Metastatic tumors to the spleen: a 25-year clinicopathologic study. *Arch Pathol Lab Med* 2000; 124: 526-530.
13. Duggal R, Garg M, Kalra N, Srinivasan R, Chawla Y. Spleen metastasis from hepatocellular carcinoma: report of a case with diagnosis by fine needle aspiration cytology. *Acta Cytol* 2010; 54: 783-786.