

Hemoperitoneum secondary to spontaneous rupture of metastatic gastric leiomyosarcoma of the liver: Report of a case

Karaciğere metastaz yapmış gastrik leiomyosarkomun spontan rüptürüne bağlı hemoperiton: Olgu sunusu

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Hepatic rupture with resulting hemoperitoneum due to metastatic cancer is uncommon. Reports in the literature have described a wide variety of neoplasms causing this usually fatal phenomenon. We describe a rare case of spontaneous rupture of hepatic metastases from gastric leiomyosarcoma. A 72-year-old male patient with sudden onset severe epigastric pain was rushed into emergency service. After examination, the patient underwent urgent operation with the possible diagnosis of perforated gastric or duodenal ulcer. During exploration, we determined bleeding mass on the diaphragmatic side of the left lobe of the liver and a mass on the posterior wall of the stomach. Hemostasis was provided.

Key words: Hemoperitoneum, hepatic metastases, leiomyosarcoma

Metastatik kanser nedeniyle, hemoperitoneum ile sonuçlanan hepatik rüptür nadirdir. Literatürde çok çeşitli neoplazmların bu ölümcül fenomene neden oldukları tanımlanmıştır. Biz gastrik leiomyosarkomun hepatik metastazından kaynaklanan spontan rüptürü sunmak istedik. Yetmişiki yaşında erkek hasta ani başlayan karın ağrısı nedeniyle acil servise başvurdu. Değerlendirmeler sonucunda gastrik veya duodenal ülser perforasyonu ön tanısı ile acil operasyon kararı alındı. Eksploreyonda karaciğer sol lob diafragmatik yüzde kanayan ve mide posterior duvarda kitle tesbit edildi. Hemostaz sağlandı.

Anahtar kelimeler: Hemoperitoneum, hepatik metastaz, leiomyosarkom

INTRODUCTION

Nontraumatic rupture of the liver occurs in primary benign or malignant tumors, metastatic carcinoma, peliosis hepatis, polyarteritis nodosa, systemic lupus erythematosus and toxemia of pregnancy (1), but spontaneous hepatic rupture with resulting hemoperitoneum due to metastatic cancer is uncommon (2). We present a patient with hemoperitoneum due to bleeding hepatic metastasis originating from a gastric leiomyosarcoma.

CASE REPORT

A 72-year-old male patient with sudden onset severe epigastric pain was rushed into emergency service. He reported frequently experiencing such pain, which was alleviated by taking H-2 receptor antagonists, but the antagonists failed to relieve the pain following this latest episode. His physical

examination revealed epigastric rigidity. Preliminary diagnosis was perforation of peptic ulcer. His laboratory findings revealed white blood cell count 17,100/ml and hemoglobin 10.4 g/dl. Coagulation system of the patient was normal. Plain films of abdomen and chest were normal. Abdominal ultrasonography showed metastatic lesions in the liver and ascites. Urgent operation was decided. In laparotomy, 250 cc intraperitoneal hemorrhage, multiple nodular lesions on the liver surface, 6x7 cm subcapsular hematoma on the diaphragmatic side of the left lobe of the liver, and 9x9 cm hemorrhagic mass were determined. Hemostasis was provided with cauterization and suture ligation. The liver did not appear cirrhotic. A mass 6x6 cm in diameter on the posterior wall of the stomach was established. Biopsy was taken from the

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lesion on the stomach and the incision was closed. On the postoperative sixth day, multiple metastases in liver and bleeding lesion were screened on magnetic resonance imaging (Figure 1). Microscopic examination of the biopsy material revealed a leiomyosarcoma (Figure 2). The patient was discharged on the postoperative eighth day and was directed to the medical oncology department.

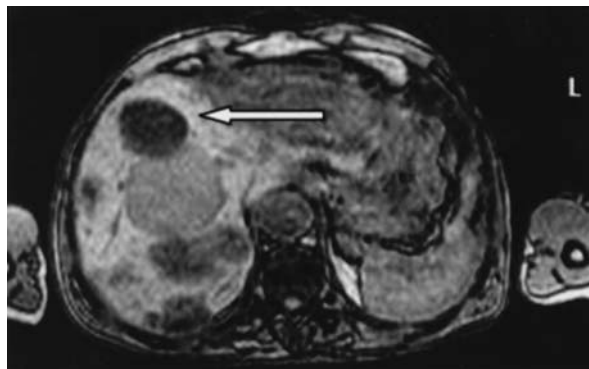


Figure 1. Magnetic resonance imaging of the bleeding lesion of the liver

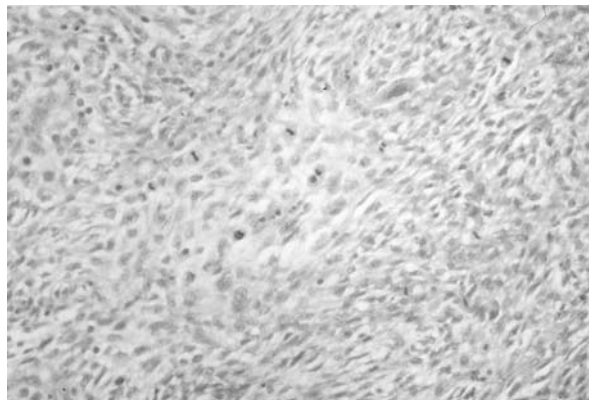


Figure 2. Microscopic appearance of leiomyosarcoma originating from stomach

DISCUSSION

Metastatic disease of the liver resulting in spontaneous hepatic rupture is very rare in comparison with primary hepatic tumor (2, 3). This probably

reflects the tendency of metastatic cancer to be more fibrotic, less vascular and invasive, and to penetrate the liver capsule less frequently than primary tumor (3). In a recent review of the world literature, there have been some reported cases of spontaneous rupture of hepatic metastases from primary sites including the lung, stomach, kidney, colon, pancreas, testicle, gallbladder, skin, choriocarcinoma, breast, prostate, malignant melanoma and unknown (3, 4, 5). The mechanism of rupture may be attributed in some instances to necrosis and breakdown of a tumor nodule or increased intravascular pressure secondary to tumor emboli, resulting in intrahepatic venous obstruction (1). However, direct pressure by the tumor against the capsular surface seems the best explanation in this case. Because this condition is so uncommon, diagnosis is rarely made preoperatively, especially in a previously healthy patient (6). When associated with acute abdomen, it is most often misdiagnosed as a perforated gastric or duodenal ulcer (6).

Treatment of this type of hemoperitoneum depends on the size of the hepatic tumor, tumor location and rate of bleeding, with control of hemorrhage being the major objective (4, 6). Since therapy is palliative rather than curative and most patients with this complication are in shock or an unstable state, the goal of surgery should be an attempt to control the hemorrhage quickly and effectively (4, 6). Although suture ligation and cauterization are sometimes sufficient in order to control bleeding, resection and hemostasis, abdominal packing and/or embolization may be necessary in massive bleeding. For our patient as well, suture ligation and cauterization were adequate to control the bleeding, since the rate of the bleeding was not excessive. Because our patient was inoperable, he was referred to medical oncology without considering intervention for the primary tumor in the same or in a second operation.

Although liver rupture due to metastatic disease is uncommon, it is a dramatic, devastating entity. The aim of this report was to draw attention to the possibility of spontaneous rupture in cases of acute abdomen.

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