Ulus Cerrahi Derg 2015
DOI: 10.5152/UCD.2015.3048

Splenic hamartoma is a rare cause of abdominal pain: Case report and literature review

Nadir bir karın ağrısı nedeni, splenik hamartom: Olgu sunumu ve literatürün gözden geçirilmesi

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ABSTRACT

Hamartoma is a rare benign tumor of the spleen. It is often asymptomatic and diagnosed incidentally. In this study, we report the case of a 51-year-old female patient who was admitted to our department for intermittent epigastric pain since the last 6 months and left upper quadrant fullness. She was diagnosed with splenic hamartoma histopathologically after splenectomy. Although splenic hamartoma is very rare, it must be included in the differential diagnosis of splenic mass-forming lesions.

Keywords: Splenic mass, hamartoma, splenectomy

ÖZET

Hamartomlar dalağın nadir görülen benign tümörleridir. Genellikle asemptomatiktir ve başka bir nedenle yapılan tetkikler sırasında tesadüfen saptanır. Bu olgu sunumumuzda son 6 aydır ara ara epigastrik ağrı ve sol üst kadranda dolgunluk hissi şikayeti ile kliniğimize başvuran, yapılan görüntülemelerde dalakta tümöral kitle saptanan ve splenektomi sonrası histopatolojik inceleme ile dalak hamartomu tanısı koyulan 51 yaşında kadın hasta sunulmaktadır. Dalak hamartomları nadir görülmesine rağmen, dalak kitlelerinin ayırıcı tanısında akılda bulundurulmalıdır.

Anahtar Kelimeler: Dalak kitlesi, hamartom, splenektomi

INTRODUCTION

Splenic hamartoma (SH), which was first described in 1861 by Rokitansky, is a rare benign lesion of the spleen (1). Splenic hamartoma occurs equally in men and women (2). It is often asymptomatic and diagnosed incidentally (2, 3). Splenic hamartoma is generally a single lesion, with rare occurrence of multiple lesions. The size of SH ranges from a few millimeters to centimeters, with a median size of 5 cm. A 20 cm SH was reported in the literature (4). A minority of patients with large hamartomas have symptoms such as non-specific abdominal pain, thrombocytopenia, splenomegaly, fever, and night sweats (3, 4). In this study, we report the case of a 51-year-old female patient diagnosed with SH histopathologically.

CASE PRESENTATION

A 51-year-old female patient was admitted to our department for intermittent epigastric pain of 6 months' duration and left upper quadrant fullness. Physical examination was unremarkable, and blood tests revealed mild thrombocytopenia (140×10^9/L). Abdominal ultrasonography (US) showed a 1-cm mass in liver segment 7 and a splenic mass 5×6 cm in size. Further investigation with abdominal and dynamic liver computed tomography (CT) scans were performed. Computed tomography analysis suspected a hemangioma for the liver mass and revealed intraparenchymal hypodense splenic lesion (7 cm in size) with late phase enhancement after the administration of contrast material (Figure 1).

Splenectomy was performed for diagnosis and treatment. The patient was discharged from the hospital on the postoperative 8th day without any complications. Pathological examination revealed round, well-circumscribed, $8.5 \times 6 \times 6$ cm in size, and unencapsulated bulging hamartoma containing fibrotic areas inside the tumor.

DISCUSSION

Splenic hamartomas are rare benign lesions originating from the red or white pulp of the spleen. More than 80% of the cases are asymptomatic, and SHs are normally an incidental finding during imaging, surgery, or autopsy (1, 2). They can occur in any age group and equally in men and women (2). It tends to be larger in women probably because of female sex hormones (5). Approximately 20% of the patients are presented with non-specific symptoms. The main complaints of these patients are abdominal pain and digestion problems. In physical examination, spleen can be palpated below the costal margin or splenic mass can be palpated (5, 6). Splenic rupture caused by hamartomas has been reported only in a few patients in the literature (7).

Recently, Wang et al. (6) reviewed the features of the SH in US, colored Doppler US, CT, and magnetic resonance imaging (MRI) for radiological diagnosis. According to this study, SHs were generally de-

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Received / *Geliş Tarihi*: 25.12.2014
Accepted / *Kabul Tarihi*: 21.02.2015
Available Online Date / *Çevrimiçi Yayın Tarihi*: 14.07.2015

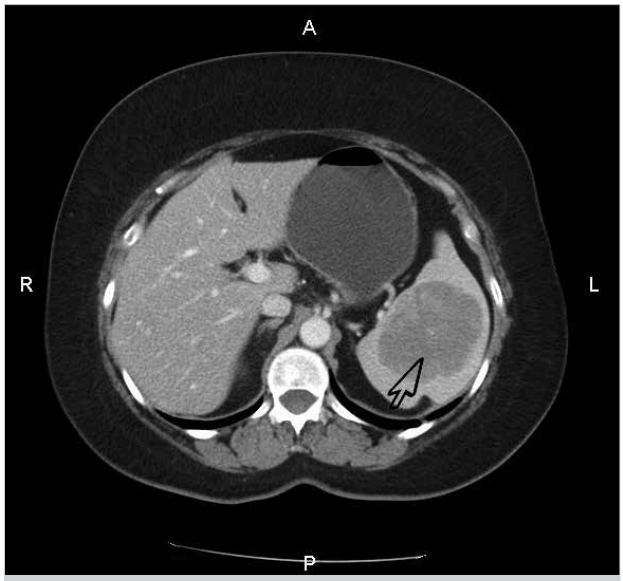

Figure 1. Contrast-enhanced computed tomography scan showing a solid mass (7 cm in diameter) in the center of the spleen

tected as a hypoechoic solid mass in US, and they showed an inc-reased blood flow due to hypervascularity in Doppler US. On CT, SHs appeared as isodense or hypodense solid masses, and cystic and calcified areas in splenic lesions were found to be characteristic for the SHs. On MRI, it was isointense on T1-weighted images and was heterogeneously hyperintense on T2-weighted images (6).

The use of the fine-needle aspiration biopsy (FNAB) and cytological examination in splenic lesions are disputable. Although performing FNAB with US is helpful for diagnosis, FNAB by itself is not sufficient for definitive diagnosis (2, 8).

The open and laparoscopic procedures can be applied with lower mortality for diagnosis and treatment of SHs (9). Total or partial splenectomy can be performed safely for these patients. Although the use of partial splenectomy is not preferred in surgical practice today, it is significant for preserving the immunological functions of the spleen (10). The laparoscopic methods are preferred for partial splenectomy and smaller lesions, whereas total splenectomy or open surgical procedures are preferred for larger and multiple lesions (9).

In postoperative histopathological examinations, well-circumscribed single mass or multiple lesions are observed. Larger masses may cause pressure on normal splenic parenchyma. They may be divided into the red pulp type (disorganized splenic sinus), white pulp type (lymphoid tissue), mixed type (red and white pulp), and fibrous type (10). The structures of both pulps are found to be mixed in most SHs. The characteristic histological aspect is randomly located endothelial cells and vascular channels. Immunohistochemically, the lining cells of the vascular channels of the hamartoma are positive for the endothelial markers CD8, CD31, CD34, von Willebrand factor antigen, and vimentin (1).

Splenic hamartoma must be distinguished from splenic malignant lesions such as lymphangioma, hemangioblastoma, and angiosarcoma. In addition, in radiological differential diagnosis, inflammatory myofibroblast tumors; lymphoma; the rare splenic metastasis of malignant melanoma; and breast, lung and colorectal cancers should be considered (5, 6).

CONCLUSION

Splenic hamartoma is a benign vascular proliferative lesion. Because this tumor is very rare, it must be included in the differential diagnosis of splenic mass-forming lesions.

Informed Consent: Data was evaluated retrospectively after the required current treatment was completed, so the informed consent was not received.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - T.E.; Design - T.E.; Supervision - A.Ç.; Materials - A.Ç.; Data Collection and/or Processing - A.F.K.; Analysis and/or Interpretation - Y.S.; Literature Review - T.E.; Writer - T.E.; Critical Review - Y.S.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

Hasta Onamı: Hastaya güncel literatür ile uyumlu gereken tedavi uygulandıktan sonra, veriler retrospektif olarak değerlendirilerek olgu sunumu olarak yazıldığından çalışmamız için onam alınmadı.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Fikir - T.E.; Tasarım - T.E.; Denetleme - A.Ç.; Malzemeler - A.Ç.; Veri toplanması ve/veya işlemesi - A.F.K.; Analiz ve/veya yorum - Y.S.; Literatür taraması - T.E.; Yazıyı yazan - T.E.; Eleştirel İnceleme - Y.S.

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemişlerdir.

Finansal Destek: Yazarlar bu çalışma için finansal destek almadıklarını beyan etmişlerdir.

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