

Spontaneous retroperitoneal hematoma mimicking retroperitoneal malignancy in a pregnant woman

Gebe bir hastada retroperitoneal maligniteyi taklit eden spontan retroperitoneal hematom

Serdar Özdemir¹, Ertan Sönmez²

¹ Department of Emergency Medicine, Health of Sciences University Ümraniye Training and Research Hospital, Istanbul, Turkey
² Bezmialem Vakıf University, Faculty of Medicine, Department of Emergency Medicine, Istanbul, Turkey

ORCID ID of the author(s)

SÖ: 0000-0002-6186-6110

ES: 0000-0003-1774-3276

Abstract

Spontaneous retroperitoneal hematomas can cause maternal and fetal complications during pregnancy. A female patient with 10 weeks' gestation was referred to our clinic with back pain by her gynecologist for retroperitoneal mass excision and termination of pregnancy, due to the retroperitoneal malignancy seen on ultrasonography. MRI revealed a 90x110 mm retroperitoneal hematoma adjacent to the posterior of the left kidney. The patient was followed conservatively for 7 days and discharged without any fatal or maternal complications. We recommend that advanced imaging methods should be preferred in selected cases.

Keywords: Spontaneous retroperitoneal hematoma, Retroperitoneal hematoma, Pregnancy, Pregnant women

Öz

Spontan retroperitoneal hematomlar hamilelik sırasında maternal ve fetal komplikasyonlara neden olabilir. 10 haftalık gebeliği olan bir kadın hasta sırt ağrısı ile kliniğimize başvurdu. Hasta jinekoloğu tarafından, ultrasonografide görülen retroperitoneal malignite nedeniyle retroperitoneal kitle eksizyonu ve gebeliğin sonlandırılması için yönlendirilmişti. MRG'de sol böbreğin arka tarafına bitişik 90x110 mm retroperitoneal hematom saptandı. Hasta 7 gün boyunca konservatif olarak takip edildi ve ölümcül veya maternal komplikasyon gelişmeksizin taburcu edildi. Seçilmiş vakalarda gelişmiş görüntüleme yöntemlerinin tercih edilmesini öneririz.

Anahtar kelimeler: Spontan retroperitoneal hematom, Retroperitoneal hematom, Gebe, Gebelik

Introduction

The retroperitoneum is a large area bounded by the posterior parietal peritoneum, the transversalis fascia, posterior and superior diaphragm. It includes gastrointestinal, musculoskeletal, vascular, visceral, and neural structures, including the distal esophagus, the second, third and fourth parts of the duodenum, posterior parts of the ascending and descending colon, the pancreas, rectum, kidneys, bladder, abdominal aorta, vena cava inferior, psoas major, quadratus lumborum and iliacus muscles [1]. Bleeding in any these organs may cause a retroperitoneal hematoma. Computed Tomography (CT) scan of the abdomen is the main diagnostic method. However, in some cases, such as our pregnant patient, CT cannot be preferred [1,2]. Early diagnosis and watchful conservative treatment can improve the outcome in retroperitoneal hematoma.

In this case report, we aimed to discuss the case of a spontaneous retroperitoneal hematoma mimicking retroperitoneal malignancy in a 10-weeks pregnant woman.

Corresponding author / Sorumlu yazar:

Serdar Özdemir

Address / Adres: Sağlık Bilimleri Üniversitesi Ümraniye Eğitim ve Araştırma Hastanesi Acil Tıp Kliniği, İstanbul, Türkiye
E-mail: dr.serdar55@hotmail.com

Informed Consent: The authors stated that the written consent was obtained from the patient presented with images in the study.

Hasta Onamı: Yazarlar çalışmada görüntüleri ile sunulan hastadan yazılı onam alındığını ifade etmiştir.

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

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemişlerdir.

Financial Disclosure: The authors declared that this study has received no financial support.
Finansal Destek: Yazarlar bu çalışma için finansal destek almadıklarını beyan etmişlerdir.

Previous presentation: This case report was presented as a poster presentation in the 5th International Critical Care and Emergency Medicine Congress between 19 - 22 April 2018.

Published: 10/28/2020
Yayın Tarihi: 28.10.2020

Copyright © 2020 The Author(s)
Published by JOSAM

This is an open access article distributed under the terms of the Creative Commons Attribution-Non Commercial-NoDerivatives License 4.0 (CC BY-NC-ND 4.0) where it is permissible to download, share, remix, transform, and build upon the work provided it is properly cited. The work cannot be used commercially without permission from the journal.



Case presentation

A 41-year-old, gravida 2, para 1, female patient was referred to our clinic at 10 weeks' gestation with back pain by her gynecologist for retroperitoneal mass excision and termination of pregnancy due to a retroperitoneal malignancy seen on ultrasonography.

On the patient's admission, she had left side pain. Vital parameters were as follows: Arterial blood pressure: 107/70 mm/Hg, heart rate: 95 /min, SpO₂: 98% and fever: 36,7 °C. Her obstetrical history included spontaneous vaginal delivery of a child without any gestational complications. Her medical history was not significant for inherited bleeding disorders, allergy, medication, or any other diseases. Physical examination revealed no tenderness in the abdomen. Left costovertebral angle tenderness was noted.

Her complete blood count revealed hemoglobin value of 8.61 g/dl, hematocrit value of 26.2%, leukocyte value of 27.8 K/uL, and platelet count of 220,000 /nl. Her aPTT (activated partial prothrombin time) level was 24.6 s (normal 25–40 s) and INR was 1.29. Biochemical parameters were within the normal ranges. Pregnancy, compatible with 10 weeks' gestation, and fetal heartbeat were observed in obstetric ultrasonography. Abdominal ultrasonography showed an exogenous solid mass lesion of 85.5x80 mm, extending in the upper zone of the left kidney (Figure 1).

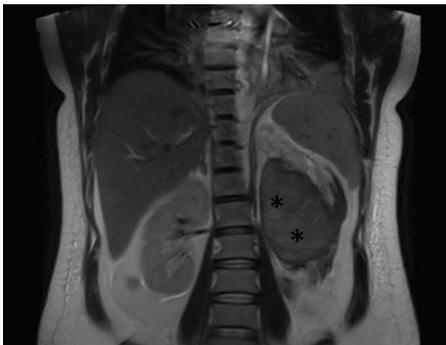


Figure 1: Non-Contrast enhanced abdominal MRI showing a 90x110 mm retroperitoneal hematoma adjacent to the posterior of the left kidney in T2-weighted images (asterisks). An evidence of retroperitoneal hematoma is the displacement of the left kidney.

Patient was hospitalized and magnetic resonance imaging (MRI) was performed after obtaining consent from the patient and relatives. MRI revealed a 90x110 mm retroperitoneal hematoma adjacent to the posterior of the left kidney. Upon a decrease in hemoglobin values during the hospitalization of the patient (Figure 2), 2 units of erythrocyte suspension and 1 unit of fresh frozen plasma were given. The patient was followed conservatively for 7 days and discharged without any fetal or maternal complications.

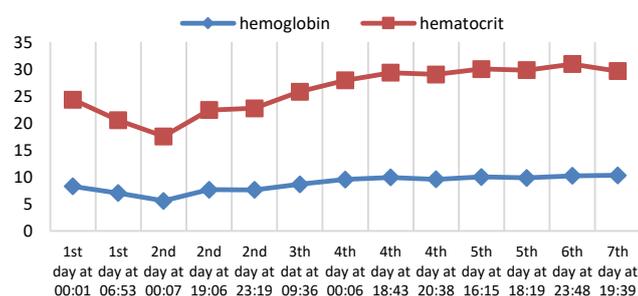


Figure 2: Hemoglobin and Hematocrit Monitoring Chart of Patient

Discussion

Spontaneous retroperitoneal hemorrhage occurs regardless of trauma or iatrogenic causes. SRHs are rare causes of back pain [2] and are most seen in patients receiving anticoagulation therapy and hemodialysis, as well as in those with bleeding abnormalities. They may present as one of the potentially lethal and most serious complications of anticoagulation therapy [3,4], and lead to fetal loss in pregnancy [5]. Although there are various explanations of its pathogenesis in the literature, it is yet to be fully elucidated. Whether it is caused by using low molecular heparin, spontaneous muscle rupture or atherosclerosis of small vessels is still not clear (3). Our case had no history of recent anticoagulant, heparin and antiplatelet use and aPTT and INR values were within normal limits.

Clinical SRH findings, such as back pain, groin pain, abdominopelvic discomfort, abdominal distention, tachycardia, hypotension are nonspecific, and paralysis due to femoral nerve compression depends on the severity of the bleeding [3].

Conventional radiography and ultrasonography are the primarily preferred imaging modalities with low sensitivity and specificity. Plain abdomino-pelvic radiography occasionally reveals loss of psoas shadow. Ultrasonography can show spillage of hemorrhage into the peritoneal cavity, a large hematoma in the retroperitoneum and displacement of retroperitoneal structures. In ultrasonography, the presence of an abdominal aortic aneurysm with peri-aortic hemorrhage could favor a ruptured aortic aneurysm. MRI and CT imaging are superior to ultrasound and should be the preferred imaging modality [6]. However, even when high-resolution MR and CT imaging are used, the diagnosis of SRH is difficult because many benign or malignant lesions can mimic this condition. Although the differential diagnosis of primary retroperitoneal tumors and retroperitoneal hemorrhages can be made by CT or MRI, there are cases in the literature in which surgical excision is made [7].

The management of SRH includes resuscitation, transfusion, reversal of anticoagulation, angioembolization and surgical exploration. The most preferred treatment modality is conservative treatment, with which most cases resolve.

Conclusion

In conclusion, clinicians should pay more attention to SRH, which occasionally mimics other disorders and may cause serious maternal and fetal complications during pregnancy. We recommend that advanced imaging methods be preferred in selected cases.

References

- Monib S, Ritchie A, Thabet E. Idiopathic Retroperitoneal Hematoma. J Surg Tech Case Rep. 2011;3(1):49–51.
- Mahoney BD. Back Pain. In: Rosen's Emergency Medicine: Concepts and Clinical Practice, 9th Edition, E-Book Elsevier;2017. pp. 278-284.
- Demir ME. Asymptomatic retroperitoneal hemorrhage in a hemodialysis patient: a case report. J Health Sci Med. 2020;3(1):80-2.
- Özdemir S. A Rare Complication of Anticoagulant Use: Colonic Intramural Hematoma-Case Report. Turk J Colorectal Dis. 2019;29(4):204-5.
- Kurdoglu M, Onan MA, Turp A, Kurdoglu Z. Spontaneous iliopsoas haematoma during heparin anticoagulation: cause of fetal loss. J Obstet Gynaecol. 2008;28(5):543-4.
- Takebayashi S, Matsui K, Hidai H. Nontraumatic hemorrhage in abdomen and retroperitoneum-CT, sonographic and clinical findings. Nippon Igaku Hoshasen Gakkai Zasshi. 1990;50:1206-14.
- Fritz DU. Retrospektive Analyse der computertomographisch gesteuerten Funktionen an einem Kollektiv von 951 Patienten. Universität Würzburg; 2014.
- Kasotakis G. Retroperitoneal and rectus sheath hematomas. In: Velmahos G, eds. Acute Care Surgery, An Issue of Surgical Clinics, E-Book Elsevier; 2014. pp. 71-76.

This paper has been checked for language accuracy by JOSAM editors.

The National Library of Medicine (NLM) citation style guide has been used in this paper.