

Penile Septal Hematoma- Report of An Unusual Case

Penil Septal Hematom- Nadir Bir Olgu Sunumu

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ABSTRACT: Hematoma associated with penile trauma, usually associated with a penile fracture involving a disruption in the integrity of tunica albuginea, is among the frequent causes of a penile mass. In this report, the authors present a 70-year-old patient with intercorporeal penile septal hematoma without a rupture of tunica albuginea following a traumatic event. Relevant imaging features are conclusive for an accurate diagnosis, particularly in cases with atypical clinical presentation, as was in the presented case.

Key Words: Penis, hematoma, ultrasound, magnetic resonance imaging

ÖZET: Penil travmaya bağlı olarak gelişen ve çoğu kez tunika albuginea'nın bütünlüğünde bir bozulmanın ve hematom oluşumunun eşlik ettiği klinik tablo en sık görülen penil kitle nedenidir. Bu yazıda, travma sonucu gelişen ve tunika albuginea'da bir rüptürün sözkonusu olmadığı 70 yaşındaki bir interkorporeal penil septal hematom olgusu sunulmaktadır. Sunulan olguda olduğu gibi, özellikle atipik bir kliniğin sözkonusu olduğu olgularda doğru tanı konulabilmesi için görüntüleme bulguları önem taşımaktadır.

Anahtar Kelimeler: Penis, hematom, ultrasonografi, manyetik rezonans görüntüleme

INTRODUCTION

A vast majority of penile masses arise from epidermis and their diagnosis is not difficult. However, the masses localized in the deep parts of the penis, involving Peyronie disease, benign and malign tumors and local manifestations of some systemic diseases like amyloidosis, are rare and a correct diagnosis presents a dilemma (1). In this report, a case of intercorporeal hematoma presenting as a penile mass without a rupture of tunica albuginea following a traumatic event is reported.

CASE PRESENTATION

A 70-year-old man was admitted with a 3-week history of painless penile mass. The patient noted his experience of a crepitation sound during coitus three months ago. He had no history of any previous medical problem.

On physical examination, a painless, hard, penile mass with a diameter of 1 cm was detected. There was no regional lymphadenopathy and the skin of the penis was normal. Moreover, he had no complaints of erectile dysfunction. He had

complaints associated with mild prostatism and on abdominal ultrasonography (US) there was a mild benign hypertrophy of the prostate gland. He had an international prostate symptom score (IPSS) of 9, whereas peak flow rate during uroflowmetry was 18mL/sn, and PSA 0.75/1.32 ng/dl. US examination of the distal part of the penis at transverse plane revealed a homogenous anechoic septal mass located between the right and left corpus cavernosum consistent with acute hematoma (Figure 1). On magnetic resonance imaging (MRI) examination, transverse and coronal T1 and T2 weighted images demonstrated a hyperintense, well defined mass at the distal part of the penis having a diameter of 12 mm in length (Figure 2). The lesion was assessed as a hematoma in the subacute stage consisting of blood breakdown elements (Figures 2 and 3). There was no evidence of rupture within the penis.

Surgical drainage of the hematoma was recommended, but the patient rejected the treatment. So we decided to observe the patient. A minimal reduction in the size of the mass was noted with serial sonographic examinations. Control examination 12 months later revealed a left-curved penis with normal erectile status, and a penile mass 0.2-0.3 cm in diameter. At that time, US examination revealed a lesion between both corpus cavernosum with undefined borders and heterogenous echotexture with numerous calcific foci associated with fibrous tissue formation at the same region (Figure 3).

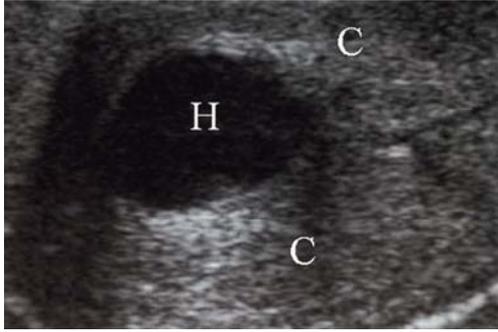


Figure 1. Transverse US scan demonstrating a homogenous anechoic septal mass located between the right and left corpus cavernosum (C) at the distal part of the penis consistent with acute hematoma (H)



Figure 2. (A) Transverse T1- and (B) coronal T2 weighted images demonstrating a well defined, hyperintense mass at the distal part of the penis having a diameter of 12 mm in length which was assessed as a hematoma in the subacute stage consisting of blood breakdown elements

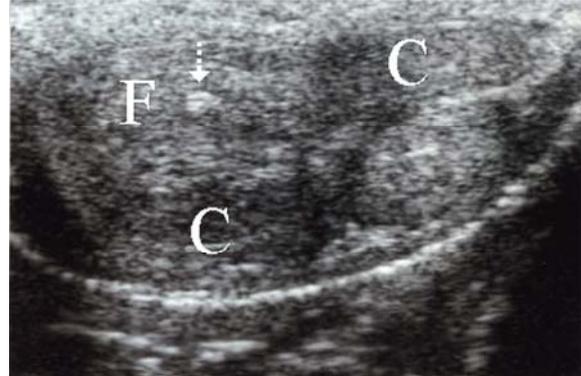


Figure 3. Transverse US scan demonstrating revealing a lesion between both corpus cavernosum (C) with undefined borders and heterogenous echotexture with numerous calcific foci (dashed arrow) associated with fibrous tissue formation (F)

DISCUSSION

Soft tissue masses of the penis are rare. In differential diagnosis Peyronie's disease, hematoma, congenital anomalies, benign and malign tumors and systemic diseases involving the penis should be considered. In this report, we presented a case of penile septal hematoma with a history of an experience of a crepitation sound during coitus three months before admission.

Classically, the correct diagnosis of acute penile trauma is usually possible in most cases and the rupture of corpus cavernosum occurs during penile erection and is associated with stretched and thinned tunica albuginea subject to trauma. A rupture of tunica albuginea involving the formation of various amount of hematoma and extravasation results in penile detumescence and loss of erection (2). As the clinical findings are apparent, the patients seek medical treatment. Caverosography and high resolution ultrasound can be used to identify the exact location of the rupture.

To the best of our knowledge, a case of intercorporeal penile septal hematoma without a rupture of tunica albuginea following a traumatic event has not been described in the literature. Connolly et al. (3) reported a case of penile hematoma due to rupture of intercorporeal septum, which was diagnosed 6 weeks after coitus and treated by surgical intervention. In our case, however, there was no rupture in the penile structures. Interestingly, they noted that the patient had no complaint associated with erectile dysfunction or penile curvature, as in our case (3). Furthermore, tunica albuginea was intact in their

case (3). So, a septal rupture may cause penile hematoma, though it is usually evident only if it is large. It is difficult to differentiate the situation from Peyronie's disease and a variety of tumors, if it is small and without a history of trauma. In the presented patient, the fact that this condition was without a rupture of tunica albuginea following a traumatic event made this case extremely rare and motivated our presentation.

MRI is useful for the differential diagnosis and accurate localization of a penile mass, especially if it is deeply located. A tear in the tunica albuginea may be seen on T2-weighted MRI images as an interruption of the normally low signal intensity ring of this structure. On MRI, hematoma presents as having a medium signal intensity on T1-weighted images and increased signal intensity on T2-weighted images (4). Nevertheless, as occurred in our case, a rupture in the tunica albuginea may not be detectable in all cases of penile hematoma, resulting in a low rate of admission as an emergency case to the hospital. In general, these patients fearfully are admitted to the hospital with a complaint of penile mass under elective conditions.

In the differential diagnosis of the penile mass, Peyronie's disease, benign tumors like angioma, neuroma, fibroma, lipoma ve myoma and malignant tumors like lymphoreticular tumors, leiomyosarcoma, fibrosarcoma, rabdomyosarcomas should be considered (5). Metastatic lesions are rare (6). In Peyronie's disease, US may give some information about the exact location and extent of the plaque, but MRI may be necessary in some cases and it shows low signal intensity, interruptions in the tunica albuginea next to the plaque, and localized areas of thickening (7). Diagnosis of primary and secondary tumors may be possible with high

resolution US and MRI, which reveal the infiltrative feature of the lesion (3).

In conclusion, a past history of penile fracture should be investigated in the presence of penile mass and a complete differential diagnosis should be done. In these cases, MRI is essential to demonstrate a septal hematoma or penile fracture and aids in the determination of treatment strategy, although it has a high expense and necessitates a specialized radiologist.

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