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A case of a hematocele of the spermatic cord mimicking epididymal tumor

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ABSTRACT

A 68-year-old man visited our hospital complaining of painless left scrotal swelling. Stony hard mass was palpable at cephalad side of the testis. MRI showed a solid component mass mimicking epididymal tumor. Thus, exploratory surgery was performed. Since the tumor was firmly adhesive to the spermatic cord, an orchiectomy was unavoidable. The pathological result was hematocele of the spermatic cord.

Introduction

There are many possible causes of painless scrotal swelling. It should be a confounded case when a firm mass is discovered outside the testicular parenchyma. Chronic hematoceles are rare scrotal masses but can mimic testicular tumors. We report a case of idiopathic scrotum hematocele on the spermatic cord that mimics an epididymal tumor.

Case Presentation

A 68-year-old man visited our hospital complaining of painless left scrotal swelling. The patient had no history of genital surgery or trauma. On palpation, an elastic firm mas in thumb head size was found on the cephalad side of the testis. Ultrasonography and MRI showed a cystic lesion originating from the epididymis with a viscous fluid retention on the epididymal head, leading to a diagnosis of spermatocele. Two years later, he returned to our hospital because of worsening testicular swelling. On palpation, a mass that was even larger and stiffer than the previous examination. Mild ecchymosis was found on the scrotal skin. Blood tests did not show elevated tumor markers of testicular cancer such as LDH, AFP, and HCG. MRI revealed a 4.0 cm mass with marked hypointensity on the T2-weighted image suggestive of solid feature rather than liquid retention (Fig. 1). Thus, the possibility of epididymal tumor could not be ruled out and exploratory surgery was performed. Unexpectedly, the tumor appeared to arise from a distal part of the spermatic cord independent of the epididymis as well as testis. The tumor was so strongly adherent to the spermatic cord that we were obliged to perform orchiectomy. The tumor was 40 × 30 mm and consisted of accumulation of blood clots surrounded by thick fibrous wall (Fig. 2). Microscopically, the tumor body was a ruptured varix encapsulated by hyalinized collagen fiber. Vessel wall structure incompletely remained at marginal area of the tumor, a part of which was lined by endothelium. Reactive lymphocyte infiltration and severe hemosiderin deposition were seen in the broken-down wall where tissue organization was processing (Fig. 3). Thus, it was assumed that extravasation of blood gradually induced tissue organization to develop fibrous capsule that enclosed the whole hematoma. The final diagnosis was a hematocele developed in a ruptured varix of the spermatic cord.

Discussion

Hematoceles are commonly associated with a history of scrotal

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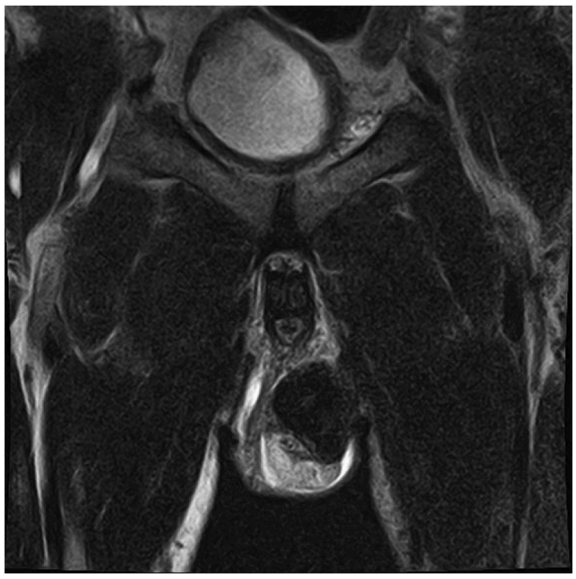

Fig. 1. MRI examination: A 45 mm-sized mass protruding outside the testis was found on the cephalad side of the testis. A marked hypointensity on the T2-weighted image and a mild hyperintensity on the T1-weighted image in the tumor. It was suggested that a cystic lesion with accumulated mucus, and a spermatocele was suspected.

injury, accompanied with scrotal pain and acute onset. However, hematocele can rarely be idiopathic with mild onset, which are thought to be secondary to asymptomatic trauma or infection and more common in elderly patients.[1] Non-traumatic secondary hematoceles can be produced by coagulation disorders or vasculitis.[2] The etiology of the hematocele formation in our patient is unknown. Hematocele is difficult to diagnose preoperatively because its symptoms may mimic cysts or neoplasms.[3] Ultrasonography is helpful for screening but often inaccurate for a definitive diagnosis.[2] MRI could be mandatory for a diagnosis because of its higher sensitivity to allow clear demonstration of blood content. Hematocele of the spermatic cord is an extremely rare manifestation of hemorrhagic hydrocele in the scrotum, most of which were associated with injury and treated with conservative management.[4] However, idiopathic chronic hematoceles are liable to become calcified and fibrotic, resulting in firm and painless masses. Given their clinical features, idiopathic hematoceles may be easily mistaken for cancer.[5] Surgical exploration may be needed when a diagnosis is in question. In this case, it is speculated that the previous episode may not be a spermatocele, but a hydrocele funiculi and spontaneous bleeding resulted in hematoma formation in the vaginal sac. Nonetheless, it was difficult to distinguish it from epididymal tumor. Therefore, it is difficult to exclude a testicular tumor and an orchiectomy is performed.

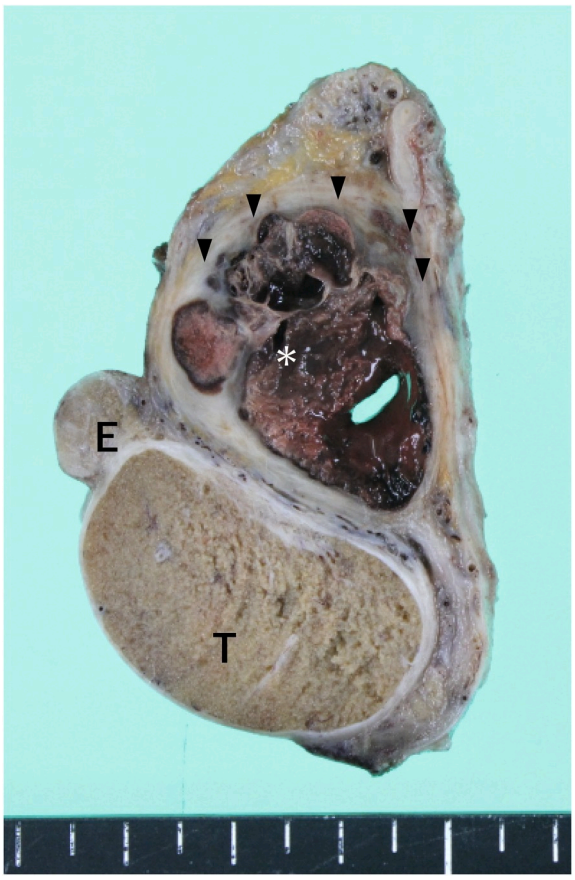

Fig. 2. Macroscopic appearance of the resected specimen: The mass was consisted of accumulation of blood clots (*) surrounded by the thick fibrous wall (▼). T: testis, E: epididymis.

Conclusion

An idiopathic hematocele of the spermatic cord should be considered in the differential diagnosis of scrotal mass. Basically, MRI examination is useful for distinguishing scrotal mass, but sometimes can be misleading in a long-lasting case like ours which becomes fibrotic and firm to mimic tumor. Surgical exploration is essential in such a case with possible malignancy.

Consent

We obtained ethics committee approval and patient informed consent.

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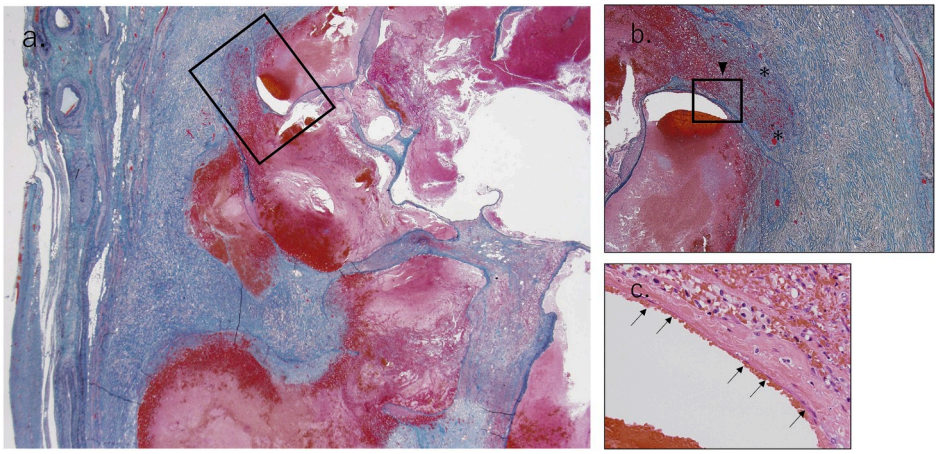

Fig. 3. a. Microscopic appearance of the resected specimen (original magnification x12.5). b. Magnified picture surrounded by a black square in Fig. 3a (original magnification x40). *: breakdown of vessel wall, ▼: organized hematoma. c. Magnified picture surrounded by a black square in Fig. 3b (original magnification x200). ↑: remaining endothelium.

agencies in the public, commercial, or not-for-profit sectors.

Declaration of competing interest

None for all authors.

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