

Spermatocele Presenting as Acute Scrotum

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INTRODUCTION

Spermatocele, a retention cyst of the scrotum which is or has been in communication with the semen-carrying system,⁽¹⁾ is a relatively common clinical entity. It presents typically as an intrascrotal paratesticular mass, but it usually has few subjective symptoms. Here, we report a case of spermatocele manifested with acute scrotum due to its unique feature.

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CASE REPORT

A 25-year-old man presented to our hospital complaining of persistent left scrotal pain with a sudden onset 12 hours earlier. He had no history of scrotal injury or vasectomy. Physical examination noticed a thumb-head-sized soft subcutaneous ovoid mass with severe tenderness above the left

testicle, but bilateral testes were normally palpable. Laboratory findings were unremarkable.

Doppler ultrasonography showed a simple cystic mass adjacent to the upper pole of the left testis and normal appearance of the both testes. However, slight decrease of blood flow in the left testis was suggested (Figure 1). Due to these confusing findings and perpetual pain, immediate surgical exploration was performed, which revealed a cystic lesion with a short stalk arising from the head of the left epididymis (Figure 2). The cyst was filled with yellowish turbid fluid and was twisted about 180 degrees. Histologically, the inner surface of the cyst wall was lined with columnar epithelial cells with cilia (Figure 3, Left). On cytological examination, the fluid in the cyst included spermatozoa (Figure 3,

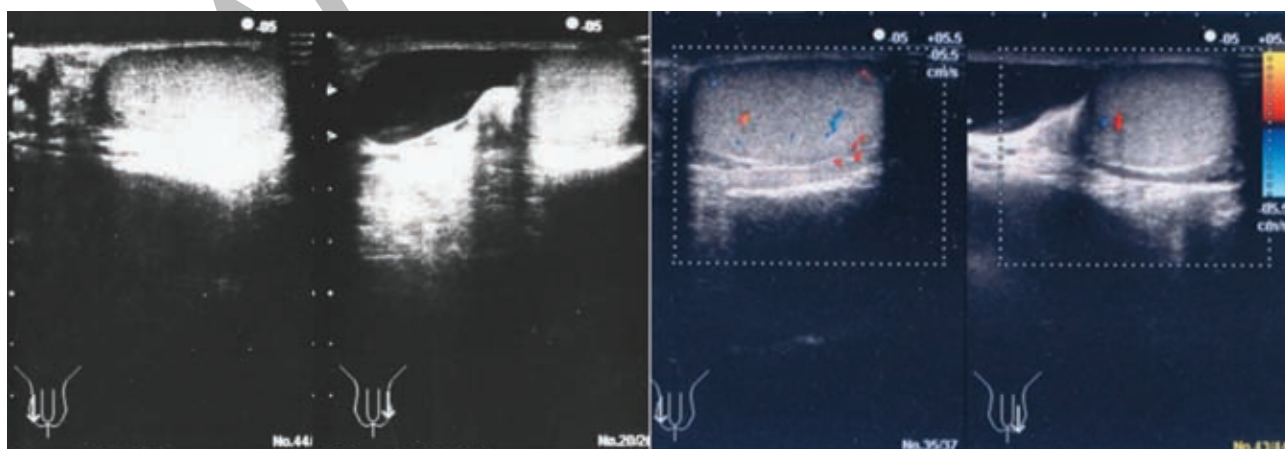


Figure 1. Left, Scrotal ultrasonography demonstrates a cystic lesion adjacent to the left testicle. Right, Doppler ultrasonography suggests slight decrease in the blood flow of the left testis compared with the right one.



Figure 2. Macroscopic findings on the surgical exploration. An ovoid cystic tumor (asterisk) arising from the head of the epididymis is shown. The testis appears normal. The tumor is connected with the epididymis by a distinct stalk. The photos were taken after release of torsion (**Left**, medial side and **Right**, lateral side). T indicates testis and E, epididymis.

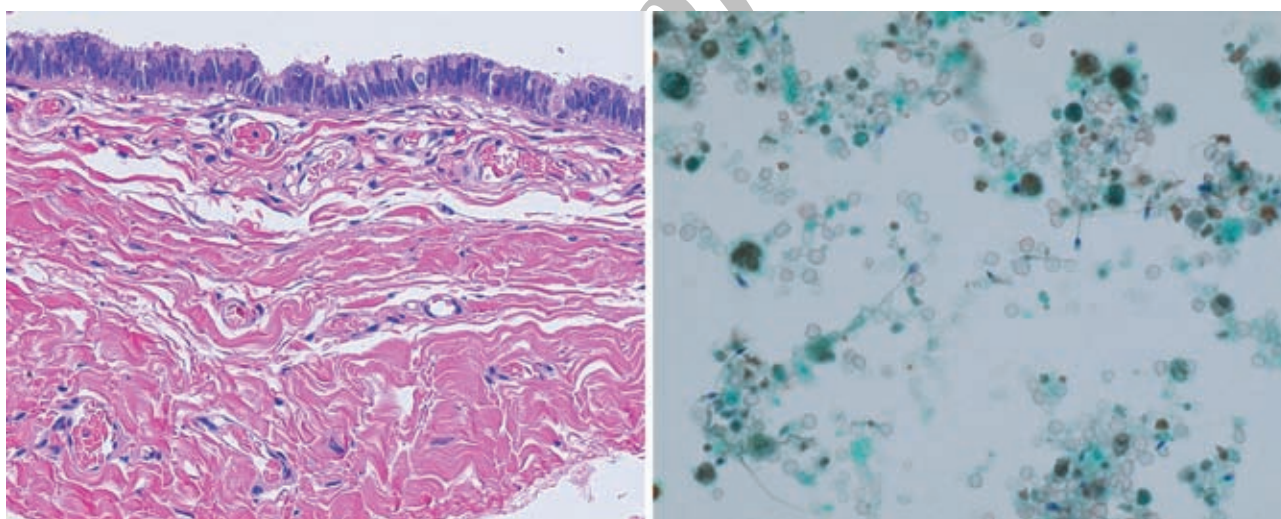


Figure 3. **Left**, Histological findings of the resected cystic mass. The cyst wall consists of connective tissue lined inside with cuboid or columnar epithelial cells with microvilli (hematoxylin-eosin, $\times 200$). **Right**, Cytological appearance of the fluid in the cyst. A number of spermatozoa are evident among many erythrocytes and some histiocytes (Papanicolaou, $\times 400$).

Right). These findings led to the pathological diagnosis of spermatocele. The convalescence period was uneventful with cease of scrotal pain, and the patient was discharged 5 days postoperatively.

DISCUSSION

The first 2 cases of spermatocele presenting as acute scrotum were reported in 1985,⁽²⁾ followed

only by 3 other cases.⁽³⁻⁵⁾ Therefore, the present case is the 6th in the literature to our knowledge. They have occurred mostly in young patients (age range, 13 to 44 years; mean, 24.5 years) who may suffer from other common causes of acute scrotum such as torsion of the spermatic cord or the appendix. Hence, its diagnosis may be difficult even though normal blood flow would be proved by Doppler ultrasonography.

Interestingly, all spermatoceles with torsion had arisen from the head of the epididymis, while some anatomical evaluations suggest the spermatocele originates most frequently from the ductuli efferentes testis, and less commonly from the superior vas afferens, canal of the epididymis, and the appendix testis.⁽¹⁾ In addition, they all had distinct pedicles with torsion, resulting in acute scrotum. The pedunculated hydatid (appendix of the epididymis) has vesicular structure lined inside with epithelial cells similar to those of the spermatic tract, attachment to the head of the epididymis by a stalk, and connection with the canal of the epididymis.⁽¹⁾ Considering these findings, it is suggested that the origin of spermatocele which can be the cause of acute scrotum is the appendix of the epididymis in connection with the canal of the epididymis. This kind of spermatocele may arise secondarily as a result of cystic transformation of the hydatid, contrary to a primary spermatocele which arises from the ductuli efferentes.

Although rare, urologists should keep in mind that the torsion of spermatocele can be a differential diagnosis of acute scrotum.

CONFLICT OF INTEREST

None declared.

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