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Torsion of Epididymal Cyst, a rare diagnosis in Acute Scrotum - Case Report

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ABSTRACT: Epididymal cysts (EC's) are benign lesions in scrotum that is relatively common in adults. Normally their treatment is conservative. They may be situated anywhere around the testis, frequently associated with the upper pole of testis. Torsion of these cysts is extremely rare, causing acute scrotal pain and swelling. The diagnosis is often made by Ultrasonography. We present a case of Torsion of Epididymal cyst in a 29 year old patient.

Keywords: Epididymis, cyst, Torsion, Scrotal Mass, Scrotal swelling

I. INTRODUCTION

Epididymal cysts (ECs) are a benign mass that usually develop in adult men, usually around the age of ~40 years, with a prevalence of 5-20% [1] according to varying series reported in the literature. They present as single or multiple, unilateral or bilateral spherical cysts localized most frequently in the head of the epididymis. These cysts are usually painless and asymptotic. Although the cause of EC is often unknown, it may be caused by epididymal ducts obstruction. They are often lymphatic in origin. When small, ECs remain undetected and can be found incidentally in approximately around 30% of asymptomatic patients having scrotal ultrasound for other reasons. On the contrary to adolescents, in adults most of these cysts are spermatocele. With a certain radiological diagnosis, their treatment is conservative under elective condition. Rarely, as result of trauma or torsion of these cysts, exploration of the scrotum is required to rule out other pathologies such as testicular torsion. An EC torsion is extremely rareand to the best of our knowledge less than 8 cases [2] have been reported in literature.

II. CASE REPORT

A 29-year-old man came to the Emergency Department with complaints of acute left scrotal pain associated with left hemiscrotum swelling for 1 day. The patient did not give any history of scrotal trauma. He had no fever, nausea, vomiting or urinary symptoms. Physical examination demonstrated right scrotal region and right testis normal. On the left side, tenderness and swelling of the left hemiscrotum; the testis was appreciated of regular consistency, with vague margins, located inferior-posteriorly. Superiorly, there was a tense cystic lesion with ill-defined margins with severe tenderness. The skin over left hemiscrotum appeared swollen, edematous, with partial loss of rugosity. Abdominal examination was unremarkable. The inguinal canal was not engaged. Total counts were slightly elevated ~13500 cells per microlitre of blood. All other Routine hematology, serum biochemistry, and urine analysis were normal.

Color-Doppler-Ultrasonography showed both testes with normal parenchymal architecture and echogenicity, with normal vascularity of both testes, with no perfusion defect of right epididymis. On the left side, the cord structures appear edematous and inflamed with increased vascularity. Thick-walled cystic lesion of size 6x4.5 cm within the epididymis with internal echoes is seen in left hemiscrotum displacing the left testis. A working diagnosis of haemorrhage into epididymal cyst or a torsion of the epididymal cyst was made.

The patient was taken up for emergency scrotal exploration under spinal anaesthesia. The left hemiscrotum was explored through a left parapheal incision. After opening the tunica vaginalis, we found a large cystic mass (6×4cm) connected to the head of epididymis by a pedicle twisted for 900°degrees (2.5 turns). The testis instead was normal. The epididymis was edematous. The cyst was untwisted and excised maintaining the integrity of the epididymis. On opening, the cyst contained dark reddish semi-clear fluid. The cyst presented in a thin wall (0.2 - 0.4 cm) with serous content ~20ml. The patient was discharged 2 days

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after surgery and physical condition was normal during discharge and during 3 and 6 months' follow-up.

Surgical exploration of the left hemiscrotum showed serous fluid, and a 900° medial-torsion of a pediculated epididymal cyst was observed. The surface of the cyst was hemorrhagic and stretched. Morphologic examination showed that the entire cyst was composed of a serous filled cavity. Cauda and corpus epididymis were intact. Pathologic examination showed a cyst lined by Ciliated columnar epithelium with focal erosions. The fibrocollagenous cyst wall shows areas of hemorrhagic necrosis associated with congested blood vessels, epididymal ducts with signs of hemorrhagic infarction. The cells of the ducts were necrotic and no sperm cells were detected. These features are consistent with TORSION OF EPIDIDYMAL CYST.

III. DISCUSSION

Acute scrotum is a surgical emergency and requires immediate evaluation and emergency surgical management. The aetiologies include testicular torsion, epididymorchitis, spermatic cord torsion, torsion of testis appendix, trauma, and hernia. In cases where ultrasonography could not rule out the diagnosis of testicular torsion or rupture, exploration of scrotum is indicated. Acute scrotum in these cysts (i.e., torsion of epididymal cyst) is extremely rare. Due to the sudden onset of symptoms and scrotal tenderness in physical examination similar to testicular torsion, exploration of the scrotum is indicated.

Epididymal cysts are usually acquired, which is why they typically occur in older men [4]. Usually, most of the patients with torsion of EC, including this case, presents with symptoms related to acute scrotum, namely scrotal swelling and pain with are acute in onset. Torsion of an EC should be considered in the differential diagnosis of acute scrotum ever known to have EC. In the case of occurrence, surgical excision of the torsed EC becomes a matter of necessity rather than of choice since surgical excision promptly resolves the intractable scrotal pain produced by the torsed EC.

Fig 1 - Epididymal cyst after opening tunica vaginalis

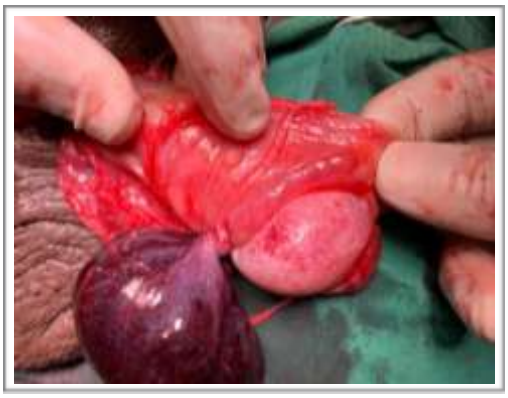

Fig 2 - Torsed Epididymal cyst (2.5 turns)

IV. CONCLUSIONS

Epididymal cysts may go into torsion just as the testicular torsion and may cause symptoms exactly similar to testicular torsion. Hence, Torsion of epididymal cysts should be considered in differential diagnosis of acute scrotum. Usually small asymptomatic cysts (under 10 mm) are followed with clinical and sonographic follow-up; with cyst between 10 & 20mm conservative management is followed if they are asymptomatic [3]; as soon as they become symptomatic, they should be excised. Big and symptomatic/ asymptomatic (due to the chances of torsion) ones must undergo surgical excision. The particularity of our case is a big EC twisted of 900°degrees. This is the only case reported in literature. All patients with torsion of EC reported presented with symptoms related to acute scrotum, namely acute scrotal swelling and pain.

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