International Surgery Journal
Aggarwal RK. Int Surg J. 2019 Jun;6(6):2225-2227
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: http://dx.doi.org/10.18203/2349-2902.isj20192401

Case Report

Scrotal calculi with delayed urethroscrotal fistula: a rare case presentation with literature review

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Received: 29 March 2019
Accepted: 17 May 2019

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ABSTRACT

Scrotal calculi are not so common entity in the clinical presentation. Scrotourethral fistula is an abnormal communication between scrotal skin and the urethra, usually result of the inflammation and due to perforation by urethral calculi and sometimes iatrogenic due to surgery done for urethral stone removal or uretheroplasty. We present here a very rare case of young adult gentleman who initially presented with a scrotal swelling, turned out into scrotal calculi while doing surgical excision, later on presented as uretheroscrotal fistula that managed conservatively. After going through the available literature and through the pub med articles (approx 148 articles while searching with titles of 'scrotal calculi', 'scrotourethral fistula', 'uretherocutaneous fistula') we found only 1-2 cases of scrotourethral fistula. A high index of clinical suspicion and examination is needed to diagnose such asymptomatic rare presentation cases.

Keywords: Scrotal calculi, Uretherocutaneous fistula, Scrotourethral fistula, Foley's catheter, USG scrotum

INTRODUCTION

Scrotal calculi are not so common entity in the clinical presentation, they are the mobile calculi found in the scrotum or in the layers of tunica vaginalis of testis, usually as a result of hematoma sequelae or due to some inflammatory reaction or as a sequelae of torsion or infarction while idiopathic in some cases.[1,2] The patient usually presents with scrotal pain or abscess, sometimes incidental findings diagnosed on Ultrasound scrotum done for some other reasons. In very rare incidence scrotal calculi can present with scrotal swelling resulting ultimately in scrotourethral fistula (as in our case). Scrotourethral fistula are very rare in incidence, and after going through the available literature and through the pub med articles (approx 148 articles while searching with titles of 'scrotal calculi', 'scrotourethral fistula', 'uretherocutaneous fistula') we found only 1-2 cases of scrotourethral fistula, among them no case was reported as scrotourethral fistula as a result of incidental diagnosed scrotal calculi which presented as asymptomatic scrotal mass, later on resulted as urehterocutaneous fistula. A high index of clinical suspicion and examination is needed to diagnose such asymptomatic rare presentation cases.

CASE REPORT

We are presenting here a case of young adult of 27 year old with complaints of small swelling in the right scrotal region with a history of 1 month only, slowly progressive in size with no urinary complaints. On clinical examination right scrotal cyst was the diagnosis made. USG scrotum also revealed the same with possibility of high vascularity lesion, fnac was not possible because of high vascularity. plan was made for excisional biopsy. While performing excision, surprisingly that turned out

Figure 1: Right scrotal swelling.

Swelling containing multiple calculi of various sizes (Figure 1 and 2). At the time of performing operation, Foley's catheter was inserted to rule out an possibility of urethral stone, but no association with urethera was established, stone was impacted in a different sac, scrotal calculi diagnosis was made. On precautionary point, only stone extracted and marsupilisation of sac was done. After 2-3 days of surgery patient again presented in surgical OPD with complaints of swelling at the operated site. On examination small swelling was noted, on compression pus and small amount of urine came out both from surgical side and from the penis (urethral meatus) that made a possible diagnosis of urethroscrotal fistula communicating through the surgical site skin (Figure 3 and 4). Again there is no visible connection found on clinical examination while putting catheter. We irrigated the wound with saline, betadine after taking sample for pus c and s, patient was kept on antibiotic and a Foley's catheter was put for the spontaneous healing of urethroscrotal fistula.

Figure 2: Multiple right scrotal calculi.

Patient responded well to conservative management of 3 weeks. Primary wound site closed as there is no communication with urethra elicited now. Urethroscrotal fistula healed, Foley's catheter removed.

Figure 3: Pus and fluid both at scrotal skin and the urethral meatus.

Figure 4: Pus and urine coming out from urethral meatus on compression of scrotal skin.

DISCUSSION

Scrotal calculi itself is very uncommon presentation in the day to day practice but scrotal calculi later on complicating as uretherocutaneous or urethroscrotal fistula made it a very rare incidence and compelled us to report this case.

Scrotourethral fistula is an abnormal communication between scrotal skin and the urethra, usually result of the inflammation and due to perforation by urethral calculi and sometimes iatrogenic due to surgery done for urethral stone removal or uretheroplasty.

Arthas et al in their study showed incidence of scrotal calculi of 2.65% who presented with complaints of scrotal region.[2] Torsion of the scrotal appendages, association with hydrocele and the sacrolithiasis should be included in the differential diagnosis of acute and chronic scrotal conditions.[3] A strong association was established in the study of Aslan et al, between scrotal calculi and the hydrocele, scrotal calculi and the scrotal pain.[4] But in our case patient presented with the scrotal swelling with no scrotal pain or the hydrocele, ultrasound scrotum also showed hypervascular lesion with no evidence of calculi. Scrotal calculi found in the sac of hydrocele in a case reported by Parlaktas et al and study done by Merino et al.[5,6] Due to frerquent use of ultrasound now a days diagnosis of scrotal calculi is more frequently being made.[7] Parlak et al also reported a case

of uretheroscrotal fistula that developed after a surgery for uretheral stone removal and cystolithotomy, patient presented with painless scrotal swelling that used to disappear after manual compression, little bit similar as in our case fistula developed after scrotal stone removal but swelling didn't disappear on manual compression but demonstrated clear evidence of scrotourethral fistula as fluid was coming out both from scrotal skin and the urethral meatus (Figure 4), so we made a diagnosis of scrotourethral fisula on clinical basis only, unlike in prior case where they prescribed multidetector CT(MDCT) for the diagnosis.[8] Stizzo et al also reported a case of uretheroscrotal fistula associated with scrotal abscess, fistula developed because of wrong catheterization and because of this fistula scrotal abscess drained and helped in prevention from developing into fourneier's gangrene.[9] But in our case no scrotal abscess or any other symptoms found other than a scrotal swelling. Savchenko Ne also reported a case of uretheroscrotal fistula but of congenital etiology.[10]

CONCLUSION

Although very rare but still urethral stones can present as scrotal swelling leading to urethroscrotal fistula ultimately, a through clinical examination with high index of suspicion is must to avoid maldiagnosis. Clinical examination is still the better modality of diagnosis rather than believing on radiological investigation alone. Small urethroscrotal fistula can be managed conservatively by putting Foley's catheter alone and curing the infection.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Aggarwal RK. Scrotal calculi with delayed urethroscrotal fistula : a rare case presentation with literature review. Int Surg J 2019;6:2225-7.