Case 820

Congenital seminal vesicle cyst: aspiration under TRUS guidance
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Section: Uroradiology & genital male imaging
Imaging Technique: Ultrasound
Case Type: Clinical Cases
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Patient: 28 years, male

Clinical History:

He had complaints of pain and discomfort during voiding and ejaculation. In his past history, there was genitourinary infection once diagnosed as epididymitis.

Imaging Findings:

28-year-old-man had complaint of pain during voiding and ejaculation. On digital rectal examination, a mass lesion was palpated on the left side of prostate. On transabdominal and transrectal ultrasonographic examinations, a cystic lesion of left seminal vesicle was seen. The cystic lesion was 56x52x46 mm in size. The patient had also ipsilateral renal agenesis. No other associated abnormality was detected. The patient was fertile. In his past history, there was genitourinary infection diagnosed as epididymitis. Then, we decided to aspirate the cystic lesion for both diagnostic and therapeutic purposes. The procedure was performed under transrectal ultrasound (TRUS) guidance (Figure 1A-B). The pathologic and biochemical results were normal. Aspirated fluid contained mature spermatozoa, fructose and normal epithelium, but no atypical cells for malignancy. The culture of fluid was negative. 9 months later, transrectal sonographic control was done. No reaccumulation was seen.

Discussion:

The seminal vesicle develops as a dorsolateral bulbous swelling of the distal mesonephric duct at approximately 12 fetal weeks. Maldevelopment of the mesonephric duct give rise to congenital seminal vesicle cysts and the associated anomalies. The physiologic role of the seminal vesicle is not entirely known, however the secreted fluid is important in the motility and metabolism of ejaculated sperm (1). The majority of patients with a seminal vesicle cyst are asymptomatic; however, they may present with urinary tract symptoms, including dysuria, painful ejaculation, hematospermia, recurrent epididymitis or male infertility. Previously, physical diagnosis and vasography were the only diagnostic tools available for studying the seminal vesicle. Transrectal ultrasound, Computed tomography (CT) and Magnetic resonance imaging (MRI) have each added substantially to examination and diagnosis of pathologic conditions of the seminal vesicle. Ultrasound, by especially transrectal route, has become one of the most accurate methods of evaluating the seminal vesicle. Patients with a suspected seminal vesicle abnormality or mass felt on rectal examination should first have a TRUS. Endorectal MR imaging should be reserved for selected patients in whom results of TRUS were not conclusive. Differential diagnosis of seminal vesicle cysts includes cysts of the Mullerian duct, the urogenital sinus/ejaculatory duct, and prostate. Since TRUS enables excellent anatomic detail of pathologic changes in the seminal vesicles, prostat and ejaculatory ducts, TRUS shows clearly cyst site, origin, size and components, and provides enough information to distinguish a seminal vesicle cyst from the others (Mullerian duct, ejaculatory duct, etc). Papillary adenoma and cystadenoma may mimic simple seminal vesicle cysts in their presentation and imaging. Aspiration of the cyst may be the diagnosis of choice because preoperative diagnosis...
rarely made. Hydatid disease affecting the seminal vesicle can cause hematospermia, infertility, infection, or pain and it should also be considered in differential diagnosis (1,2). Early stage of a hydatid cyst looks like a simple cyst so that it is not possible to differ it from noninfected seminal vesicle cyst. Some authors have reported an association between seminal vesicle cysts and adult polycystic kidney disease (3). They recommend that all patients with cysts of the seminal vesicle undergo imaging of the kidneys to rule out polycystic disease. Unless the cystic lesion is symptomatic, treatment is not necessary. Treatments of conditions of the seminal vesicle cysts are limited to transperineal and transvesical aspiration; transurethral unroofing; laparoscopic dissection; and open resection. In the past, open surgery was often necessary for definitive treatment of seminal vesicle cysts. Nowadays, recent refinements in TRUS and endoscopic instrumentation have expanded the roles of these modalities in the management of retrovesical cysts (4,5).

**Differential Diagnosis List:** Congenital Seminal Vesicle Cyst

**Final Diagnosis:** Congenital Seminal Vesicle Cyst

**References:**


Description: On transrectal ultrasound examination, seminal vesicle cyst and bladder were seen together before aspiration (A). Origin:

Description: After aspiration, the cyst was almost completely disappeared (B). Origin: