CASE REPORT

Rare Presentation of Benign Prostatic Cyst: A Case Report

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Abstract

Background: Prostatic cyst is a rare disease of prostate, with 0.5–7.9% prevalence. It is often asymptomatic and found accidentally using abdominal ultrasound, computed tomography (CT), or magnetic resonance imaging (MRI). It is a rare pathology which can be confused with diseases of prostate like benign hyperplasia of prostate or carcinoma prostate which are much more common in old age.

Case description: A 70-year-old male presented to emergency department with complaints of acute urinary retention and constipation. Abdomen was opened via a lower midline incision revealing a large cystic lesion of prostate which was aspirated (550 mL approximately, brownish in color) and deroofing of cyst wall was done. Complete excision could not be done due to the presence of adhesion with rectal wall. Histopathology report confirmed it to be a benign cyst of prostate.

Discussion: Existing literature of prostatic cysts are highlighting its infrequent occurrence. The etiological factors of prostatic cyst include inflammatory disease, benign prostatic hyperplasia, ejaculatory duct obstruction, atrophy of prostate gland, and tumor. In our case, the patient had urinary retention and constipation which was related to large size of the cyst. The differential diagnosis includes bladder diverticulum, teratoma, seminal vesicle cyst, epididymal cyst, and Wolffian duct cyst.

Keywords: Benign hyperplasia prostate, Carcinoma prostate, Prostatic cyst.

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Introduction

Prostatic cyst is a rare disease of prostate with 0.5–7.9% prevalence.[1] It is often asymptomatic and found accidentally with abdominal ultrasound, computed tomography (CT), or magnetic resonance imaging (MRI). It is a rare pathology which can be confused with diseases of prostate like benign hyperplasia of prostate or carcinoma prostate which are much more common in old age.

Case Description

A 70-year-old male presented to the emergency department with complaints of acute urinary retention and constipation. He had long-standing symptoms of bladder outlet obstruction and repeated catheterization with complaint of constipation. Abdominal examination was normal. Rectal examination revealed a nontender smooth cystic swelling anteriorly from which prostate could not be separately delineated. It was not possible to get above the swelling. Rectal mucosa was normal and freely mobile.

Abdominal ultrasonography revealed cystic swelling in close relation to prostate and rectal wall of approximate 9 × 8 × 8 cm in size. Serum prostate-specific antigen (PSA) levels increased to 229 ng/mL while the cytology of transrectal ultrasonography-guided aspirated fluid (350 mL, brownish colored) came out to be nondiagnostic. Patient was planned for CT scan which confirmed ultrasound findings of large well-defined, rounded thin-walled predominantly cystic lesion in rectoprostatic space approximately 8.9 × 8.4 × 8.1 cm in size with fluid level within it (Fig. 1). Anteriorly, it was abutting posterior part of prostate on right side and right

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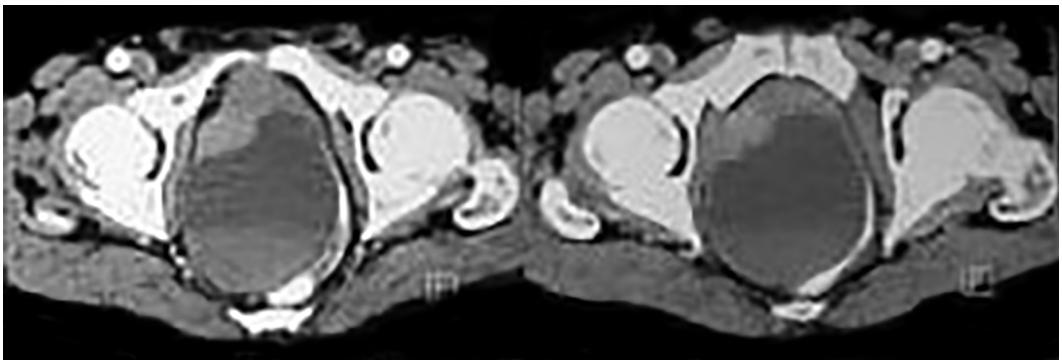

Fig. 1: Contrast-enhanced computed tomography showing large cystic lesion

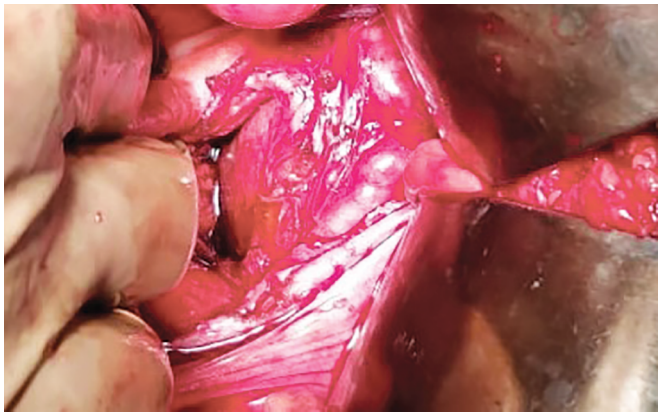

Fig. 2: Intraoperative picture showing prostatic cyst

obturator internus muscle with ill-defined fat planes. Posteriorly, cystic lesion was compressing on rectum and displacing it posterolaterally, its fat planes from anterior wall of rectum were not well defined. Inferiorly, lesion was reaching up to pelvic diaphragm. Superiorly it was reaching opposite to S2 vertebral body.

Abdomen was opened via a lower midline incision revealing a large cystic lesion of prostate which was aspirated (approximately 550 mL and brownish) and deroofing of the cyst wall was done (Fig. 2). Complete excision could not be done due to the adhesion with rectal wall. Postoperative period was uneventful. Histopathology report confirmed it to be a benign cyst of prostate.

Discussion

Existing literature of prostatic cysts are highlighting its infrequent occurrence. According to Mou et al.,[2] the etiological factors of prostatic cyst include inflammatory disease, benign prostatic hyperplasia, ejaculatory duct obstruction,[3] atrophy of prostate gland, and tumor. Clinical manifestations depend on the size of cyst and vary from asymptomatic to recurrent urinary tract infections, epididymitis, hematuria, pyuria, urinary incontinence, oligospermia, lower abdominal discomfort/heaviness, urinary retention or constipation, bladder outlet obstruction, perineal pain, hematospermia, painful ejaculation,[4] irritative and/or obstructive lower urinary tract symptoms, infertility,[5] and dysuria. In our case, the patient had urinary retention and constipation which was related to the large size of the cyst. The differential diagnosis includes bladder diverticulum, teratoma, seminal vesicle cyst, epididymal cyst, and Wolffian duct cyst. At the present time, therapeutic options consist of transurethral resection, transrectal ultrasound-guided aspiration with or without sclerotherapy, and open surgery.

Conclusion

Symptomatic prostatic cysts are very rare and they need to be differentiated from the more common causes of prostatic symptoms.

As some large prostatic cysts would have high serum PSA, it should be differentiated from prostatic neoplasm.

Prostatic cyst with progressive symptoms, large size (2.5 cm or larger), or high serum PSA should be timely managed.

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