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Prostatic Abscess about a Case at Sikasso Hospital

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Abstract **Case Report**

Introduction*:** The purpose of this study was to conduct an analysis of the diagnostic and therapeutic aspects of prostate abscess and a review of the literature. ***Clinical Observation: We report the case of a 24-year-old patient; admitted to our ward for acute detention associated with a febrile state at (38°C). On physical examination, the digital rectal examination could not assess the condition of the prostate due to severe pain and the rest of the examination was unremarkable. We formulated the following diagnostic hypotheses: prostate abscess, prostate cyst, acute prostatitis. Ultrasound allowed the diagnosis of a prostatic intraparenchymal cyst. The CBC reveals hyperleukocytosis and the ECBU came back positive for Escherichia coli. The diagnosis of a prostate abscess was retained after a guided echo puncture. Treatment consisted of transperineal drainage combined with antibiotic therapy suitable for ECB of pus aspirated during ultrasound-guided puncture. The evolution was favourable. ***Conclusion:*** Prostatic abscess is a rare pathology. Faced with a prostate collection in a febrile context, a puncture under ultrasound guidance could confirm the diagnosis. His treatment of choice remains endoscopic drainage and adapted antibiotic therapy.

Keywords: Prostate abscess, antibiotic therapy, transperineal puncture.

INTRODUCTION

Prostatic abscess is a rare pathology. It is usually caused by Enterobacteriaceae, rarely by Staphylococcus aureus. Since the widespread use of antibiotics, its symptomatology takes less and less typical forms [1-3]. Its diagnosis is currently facilitated by medical imaging [2, 4-6] (echo, CT, Urethrocystoscopy). Its management is based on adapted antibiotic therapy and drainage of the abscess either by transperineal or transrectal echo-guided puncture or endoscopic resection or by open surgery. Through this observation, we discuss the diagnostic and therapeutic aspects in a limited context.

CLINICAL OBSERVATION

Mr. A.K., aged 24, without any particular pathological history, referred by the reference health center (Health District) of Kolondièba in the region of Sikasso (Mali) for prostatic hypertrophy on ultrasound and acute retention of urine relieved by the placement of a transurethral tube CH 18. At admission the interview reveals that the beginning of the symptomatology was marked by dysuria and intermittent urinary burning evolving for 1 month associated with a very intense pelvic pain that occurred 4 days ago in a febrile context. On physical examination, the digital rectal examination could not assess the condition of the prostate because of the very strong pain on contact. We formulated the following diagnostic hypotheses: prostate cyst, acute prostatitis, prostate abscess.

Pelvic ultrasound reveals a slightly enlarged prostate carrying an intraparenchymal cyst. Pelvic CT and urethrocystoscopy were not performed due to lack of technical platform. The ECBU performed, came back positive to Escherichia coli. The bacteriological study of pus showed Escherichia coli a multi-resistant bacillus sensitive to fosfomycin; imipenem; chloramphenicol; Furans.

The diagnosis was rather oriented towards a prostate cyst however the persistence of fever and the results of biological examinations namely the identification of germ and hyperleukocytosis directed us towards a parenchymal infection.

The patient was treated with chloramphenicol 500mg due to one capsule every 12 hours and the exploratory transperineal ultrasound-guided puncture of the cyst which yielded 2 CC of frank pus. The evolution was marked by apyrexia and the disappearance of pain after 48 hours of antibiotic therapy as well as the disappearance of signs of obstruction of the lower urinary tract at the removal of the catheter the same day. Follow-up after 21 days of treatment and then at 6 months shows a normalization of blood and urine tests. The control prostate ultrasound performed also returned to normal.

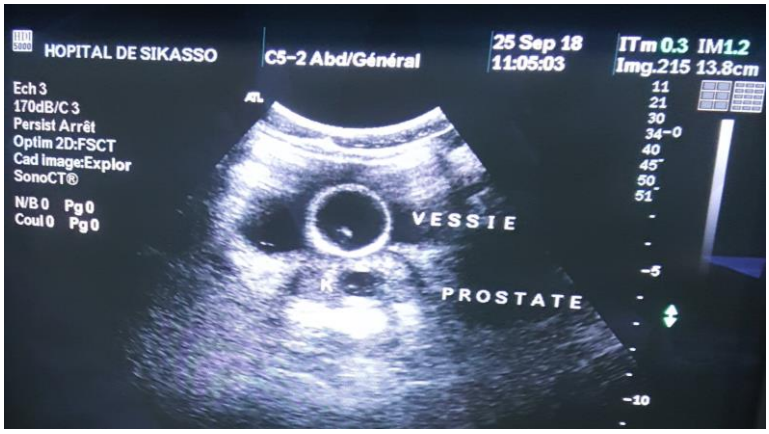

Figure 1: Vesicoprostatic ultrasound

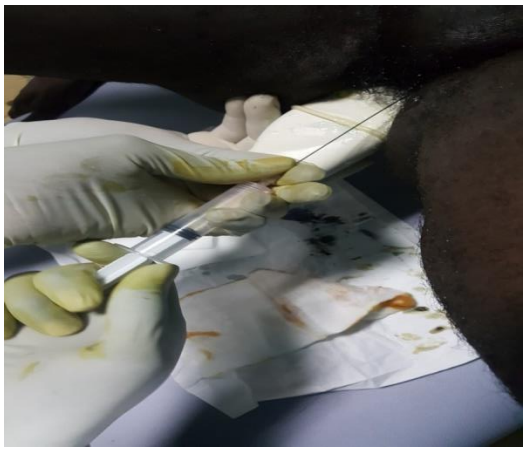

Figure 2: Transperineal ultrasound guide puncture Nephrostomy puncture needle 22G (d=7mm; long=20cm)

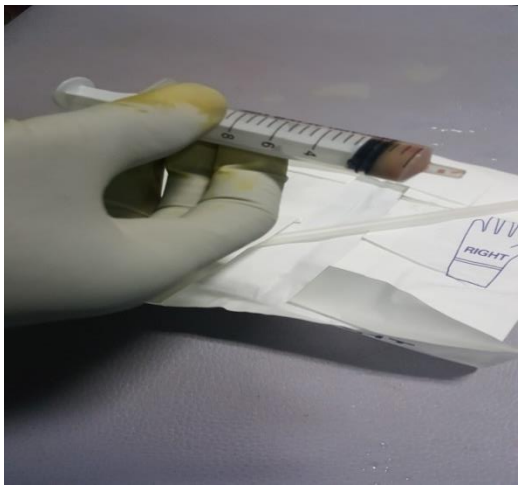

Figure 3: 2 cc of pus franc

DISCUSSION

Prostate abscess is a rare condition, accounting for about 0.5% of all prostate pathologies [12]. It can affect men at any age. Our patient was 24 years old. The signs were not specific. He had presented a beginning of symptomatology marked by dysuria and intermittent urination burns evolving for 1 month associated with a very intense pelvic pain occurred for 4 days in a febrile context. Known risk factors for the development of prostate abscess are diabetes, obstructive pathologies of the lower urinary tract, bladder catheterization, chronic renal failure, hemodialysis and HIV infection [2, 12-15,]. On the other hand, no factor was found in our patient. According to Collado A. [16] *et al.*, 60-80% of pathogenic germs are gram-negative bacilli. The advent of antibiotics and the increase in endoscopic urology maneuvers have resulted in a shift in bacterial ecology towards Enterobacteriaceae [1, 2]. We found the same E. coli germ on the ECBU but multi-resistant. According to Weinberger *et al.*, [6], the digital rectal examination can find a fluctuating mase but it is found in only 16 to 20% of cases. The prostate remains sensitive in 35% of cases [7].

The diagnosis is often difficult by the digital rectal examination and therefore does not allow with certainty to make the diagnosis of the prostate abscess as was the case in our observation. Endorectal ultrasound can confirm the diagnosis and occupies a prominent place, in case of prostate abscess. It shows a hypoechoic zone at the beginning and which becomes frankly transonic at the collection stage with often a posterior reinforcement [15], it also helps guide the puncture and to monitor the evolution after treatment.

Our diagnosis was rather oriented towards a prostate cyst however the persistence of the fever directed us towards a parenchymal infection. The only scanner in the area was down our patient could not benefit from the scanner. The CT scan provides information that can be superimposed on the ultrasound, showing an area of attenuated density within the prostate gland. This observation shows that its realization is not essentiel for the diagnosis of prostatic abscess.

Differential diagnosis may occur with a prostate cyst, prostatic urethral dilation prior to urethral stricture, and adenomectomy compartment [7] Treatment of prostate abscesses is based on antibiotic therapy and drainage.

Urine diversion by suprapubic catheterization is indicated in case of urine retention or urination discomfort [2]. Antibiotic therapy should take into account the prostate barrier and the germ involved [2, 8]. Abscess drainage can be done transurethral, transrectal and transpertineal (surgical or percutaneous) [8, 9]. Transurethral endoscopic resection offers the advantage of collapsing cubicles under visual control but exposes to the risk of discharge bacteremia, or even severe sepsis [2, 5]. The transrectal route puts the risk of urethrorectal fistula [2]. The surgical perineal route is very dilapidated and may be responsible for sexual impotence [2, 5]. Perineal or transrectal guided ultrasound puncture is a simple means that is done under local anesthesia, with good tolerance and without transurethral manipulations [2, 8, 10]. Some authors have reported cures after puncture and antibiotic therapy adapted to the germ in question [1, 2] as was the case in our observation. There is no unanimity on the choice of drainage method. Thus, in case of a single abscess, percutaneous perineal drainage is the most harmless and should be done as a first intention. Endoscopic resection is indicated in case of multiple abscesses and failure of percutaneous puncture [5, 9, 10, 11]. Properly drained, prostate abscesses have a favorable evolution with ad integrum restitution of the prostate parenchyma on the other hand advanced age, high fever, urinary retention, positive blood culture and benign prostatic hyperplasia are associated with a poor prognosis [17].

CONCLUSION

Prostatic abscess is an increasingly rare pathology and its clinical symptomatology is not specific. Endorectal ultrasound and pelvic CT scan occupy a prominent place in the diagnosis. The treatment is based on percutaneous drainage transpertineally, transrectally, endoscopically with appropriate antibiotic therapy. We draw the attention of the clinician the interest of an accurate diagnosis by endorectal ultrasound in case of suspicion of a prostate cyst in a febrile context that must be reminiscent of the prostate abscess.

CONFLICTS OF INTEREST

Authors do not declare any conflict of interest.

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