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CASE REPORT

A rare case of Prostatic abscess in an adolescent managed effectively by conservative medical management with antibiotics

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Abstract

Background: Prostatic abscess is uncommon in adults and is infrequently noted in the paediatric population. Surgical drainage with adequate antibiotics is the current recommended management for prostatic abscess larger than 1 cm. However, it is still a topic debate that what should be the appropriate management of a prostatic abscess.

Case presentation: Herein, we present the case of a 16-year-old young adolescent patient with a large prostate abscess without any systemic disease who was successfully managed with antibiotics only and surgical drainage was not required for this patient.

Conclusion: Thus, we conclude that in a young adolescent patient with acute prostatic abscess, medical management with intravenous antibiotics deferring surgical drainage can be used an effective treatment option for management of this condition.

Keywords: prostatic abscess, antibiotics, MRI

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Background

The incidence of prostatic abscess is infrequent in the paediatric population. Surgical drainage with adequate antibiotics is the current recommended guideline for management of prostatic abscess larger than 1 cm [1]. However, it is still a gray area whether that is the only treatment. We present the case of a 16-year-old young adolescent patient with a large prostate abscess without any systemic disease who was successfully managed with antibiotics only and surgical drainage was not required for this patient.

Case presentation

A 16-year-old adolescent boy came with complaints of fever and dysuria and difficulty in passing urine over a period of 5 days to the urology outpatient department. On examination, patient was febrile and was having tachycardia. Past history did not reveal any significant medical illness or past surgery. On Local examination, the penile shaft was normal the preputial skin was retractable. There was evidence of right sided scrotal swelling suggestive of right sided epididymo-orchitis (Figure 1).

Figure 1. Clinical picture of the patient showing swelling over the right side of scrotum suggestive of right sided epididymo-orchitis.

Per rectal examination was painful and revealed boggy tender prostate. Patient was admitted and started on intravenous antibiotics in the form of piperacillin and tazobactam and was catheterised using a 14 F Foley catheter. Laboratory investigations revealed increased leucocyte count of 21000/mm^3 with increased neutrophil count of 91% and a normal serum creatinine. Viral markers of Human Immunodeficiency Virus also came out negative Ultrasound revealed enlarged prostate with size 38 cc with multiple hypoechoic solid cystic areas within the prostate (Figure 2).

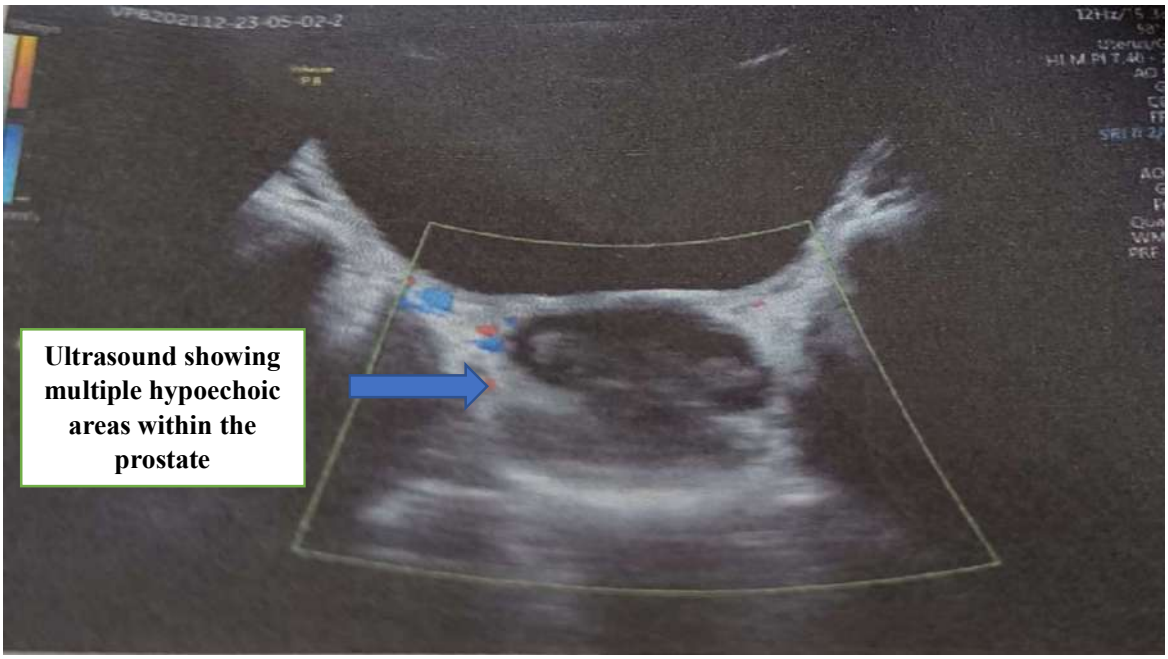

Figure 2. Ultrasound showing enlarged prostate with size of 38 cc with multiple hypoechoic areas within the prostate.

Patient further underwent Magnetic resonance imaging of the pelvis which showed a bulky prostate with a volume of 56 cc with associated significant peri-prostatic fat inflammation. Suggestive of prostatitis. Multiple pockets of collection which appear T1W1 hypointense and T2W1 /STIR hyperintense with postcontrast peripheral enhancement suggestive of prostatic abscess with largest pocket of 21 cc (Figures 3 and 4).

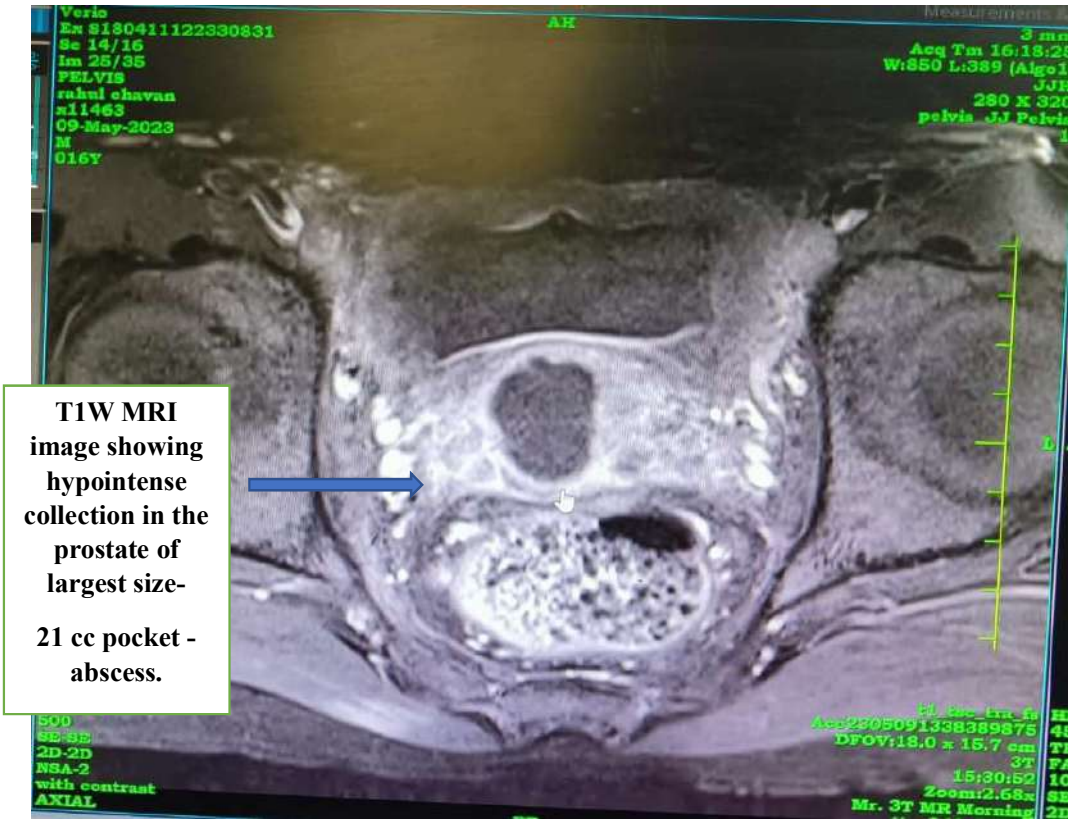

Figure 3. T1W MRI image showing hypointense collection in the prostate with largest pocket size-21 cc prostatic abscess.

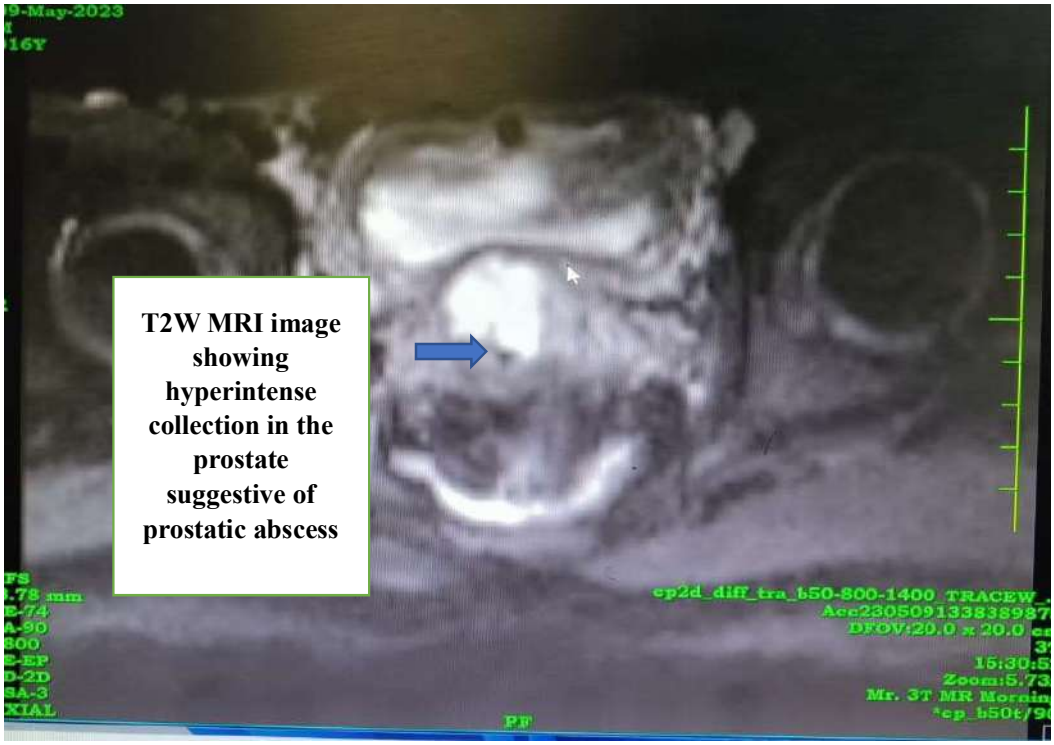

Figure 4. T2W MRI image showing hyperintense collection in the prostate suggestive of prostatic abscess.

Patient gradually improved over a period of 7 days of intravenous antibiotics and did not require surgical intervention. Thus, this case demonstrates successful management of rare prostatic abscess in an adolescent male with intravenous antibiotics without the need of surgical intervention.

Discussion

According to our review of literature, it is very rare for an adolescent to develop prostatic abscess and most of them will end up requiring surgical intervention to treat them. The incidence rate of Prostatic abscess in middle aged men is 0.2–0.5% [2]; however, it can occur at any age [3]. Escherichia coli and Klebsiella pneumoniae are common causative organisms whereas in severely immune compromised patients, we would come across atypical pathogens [3]. The clinical symptoms of prostatic abscess include burning sensation while passing urine, urgency to pass urine, increased frequency of urination, sense of not completely emptying the bladder, and pain in the suprapubic or perineal region.. Some patients only have systemic symptoms, such as fever or malaise [2]. Risk factors of prostatic abscess in adults include diabetes mellitus, chronic kidney disease, liver cirrhosis, liver abscess, human immunodeficiency virus infection, and acquired immune deficiency syndrome. History of previous chemotherapy, previous transplant, or previous urological procedures present with an increased risk of developing prostatic abscess [4]. Very few cases of adolescent patients with prostatic abscess have been reported according to our review of literature. History of previous methicillin-resistant *Staphylococcus aureus* infection and chronic granulomatous disease were presumed to the predisposing factors in these reported patients of prostatic abscess in adolescent patients.[4] However, the most recent case had no identifiable risk factors [5]. The possible risk factors of the currently presented case were because of lack of preputial hygiene and perineal hygiene and a history of recurrent UTIs. There are no standard treatment protocols described for prostatic abscess. Review of literature describes drainage or transurethral deroofing of the abscess in all the previous adolescent patients. In case of slow response to antibiotics, surgical drainage is required as demonstrated by previously reported case reports [6]. Antibiotics alone as a treatment was found to be effective if patient is stable and size of prostatic abscess is less than 1 cm [7]. Oshinomi et al. [8] concluded that in patients with diffuse type prostatic abscess; use antibiotics whereas those with focal or multifocal-type prostatic abscess, consider surgical drainage by transurethral deroofing of the prostatic abscess. However, our case report demonstrated that these patients can be managed by antibiotics alone and they can be curative as well in an adolescent patient with prostatic abscess. In our reported case, antibiotics were effective as he was diagnosed and treated early and he did not have any underlying disease. We believe that treatment with adequate antibiotics for optimally selected adolescent patients with prostatic abscess can be an effective treatment modality.

Conclusion

Thus, we conclude that in a young adolescent patient with acute prostatic abscess, medical management with intravenous antibiotics deferring surgical drainage can be used an effective treatment option for management of this condition.

List of abbreviations:

MRI-magnetic resonance imaging

Conflicts of interest

The authors declares that they do not have conflict of interest.

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