

Giant Prostatic Abscess

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Abstract: The incidence of prostatic abscess (PA) has markedly declined due to the availability of new antibiotics and the decreasing incidence of urethral gonococcal infections. However, sometimes it may enlarge in size requiring repeated aspirations and even spontaneous rupture may occur. Here we present a case of giant prostatic abscess who presented in our OPD with symptoms of acute urinary retention, fever and dysuria. The diagnosis was confirmed with the help of transrectal USG and was managed by per-rectal aspiration.

Keywords: Abscess, prostate, bacterial

INTRODUCTION

Prostatic abscess is an uncommon urologic disease [1] in the present time; however has a high mortality rate if not managed timely. It is a result of focal accumulation of pus within the prostate. The bacteriology, clinical presentation as well as the outcome has also changed dramatically due to the current antibiotic therapy. However, at times, untreated abscess may resolve or burst spontaneously.

Predisposing factors [1, 2] for Prostatic abscess include an indwelling catheter, instrumentation of the lower urinary tract, bladder outlet obstruction, acute and chronic bacterial prostatitis, chronic renal failure, haemodialysis, diabetes mellitus, cirrhosis, and, more recently, AIDS. Before the advent of modern antibiotic therapy [1, 7], 75% of prostatic abscesses were attributed to gonococcal infection, and the mortality rate was between 6% and 30%. Prostatic abscess is diagnosed in only 0.2% of patients with urologic symptoms and in 0.5%–2.5% of patients hospitalized for prostatic symptoms.

CASE REPORT

A 49-year-old male patient presented in the surgical OPD with difficulty in passing urine, dysuria for 2 weeks and was partly treated in some private clinic during this time. His USG abdomen showed grade 1 BPH [Volume= 37.4 cc, prostate 3.87x 4.27x 4.36cm³], routine urine examination findings were [pus cells 4 /hpf, epithelial cells +++] suggestive of urinary tract infection and was being treated on these line before coming to our institution. He was on oral antibiotic therapy for one week for UTI. But his repeat urine analysis after 7 days, showed large number of pus cells (30-40/hpf), and epithelial cells (2-5/hpf) indicating a persistent UTI. He presented with acute urinary retention in our hospital. On clinical

examination bladder was palpable up to umbilicus so, he was catheterised but the patient refused to get admitted in view of the festival season. Thus the patient was put on antibiotics and sent home. Four days later, patient presented with high grade fever and severe pain in the perineal region with inability to sit. He was admitted and investigated. On abdominal and transrectal USG examination revealed both the kidneys as normal but the Prostate was significantly enlarged with thick irregular collection of 105 cc (60x59x55), with internal echoes suggestive of an abscess. Per rectal examination also showed a large and tender prostate with fluctuations in between. Emergency Per rectal aspiration was done and about 50 cc of pus was aspirated and sent for microbiological examination. Patient was put on intravenous ciprofloxacin (500mg in 100 ml) and amikacin 500 mg twice daily. Patient clinical condition improved with reduction in the prostatic size on Per-rectal examination, however, fever still persisted. Two days later, patient again complained the pain in the perineal region & the difficulty in sitting. Per-rectal examination showed bulky prostate. A repeat Prostatic aspiration yielded 50 ml of pus. Pus culture sensitivity report showed methicillin sensitive staph aureus sensitive to Amoxycloxacillin, ciprofloxacin, gentamycin, linezolid, clindamycin. Intra-venous Amoxycloxacillin (1.2 gmbd) and gentamycin (70mg i/v bd) was started. Routine laboratory findings raised leukocyte count (TLC 14000, N-60, L-34, E-3, M-3), however ESR was within normal limits and viral markers (HIV, HBV, HCV) non-reactive. Fasting Blood Sugar was 92.1. Prostatic Specific Antigen was within normal limits (0.2). Repeated prostatic USG were done aspirations were repeated twice yielding 50ml & 30 ml pus and patient was put on oral clindamycin. A Catheter free trial given, however, Patient was not able to pass the urine so, he was again recatheterized. Repeat USG Prostate revealed 70x40 mm size with thick echoes after

change of antibiotics to oral clindamycin. Patient improved following the change of antibiotics and sent home after one week. He was called after one month. Follow up USG showed regression in prostatic size (27 cc) with normal and urinary bladder.



Fig-1: Pre aspiration TRUS



Fig-2: Post aspiration



Fig-3: Post Aspiration -after 1 month

diagnosis and an appropriate treatment are of paramount importance in management of prostatic abscess. The diagnosis can be difficult [7] due to its presentation with non-specific symptoms as the symptoms and clinical findings of prostatic abscess are extremely variable. The signs and symptoms of prostatic abscess are routinely fever with chills and rigor, urinary frequency, acute retention urine, dysuria, perineal or lower back pain, and haematuria. Fever, perianal pain and frequency are common symptoms with acute bacterial prostatitis; thus, it is difficult to diagnose prostatic abscess alone. However, it is important to distinguish between them as prostatic abscess may burst spontaneously to form internal fistula into the urinary bladder, prostatic urethra, rectum, or perineum and the therapeutic may also differ. On per rectal examination fluctuant mass can be appreciated in prostatic abscess whereas it would be tender and firm in consistency in acute bacterial prostatitis. In the pre-antibiotic era, *Neisseria gonorrhoea* was responsible for majority of prostatic abscess cases. However, since the advent of antibiotic therapy, the bacteriological profile has changed dramatically. Now, *E. coli* and *Staphylococcus* alone or in combination are the main causative organisms. Most of the prostatic abscesses are thought to develop as sequelae of acute or chronic prostatitis and only few evolve from haematogenous spread. It is thought that the retrograde flow of contaminated urine within the prostate during micturition is the most prevalent pathogenic factor. There was no predisposing factor in our patient.

Initially the disease manifests as dysuria, urgency, and frequency in 96% of the cases, fever in 30% to 72%, and urinary retention in 1/3 of the patients. The most typical sign of prostatic abscess is fluctuant and painful prostate at digital examination, and leucocytosis and leucocyturia as well. The diagnostic tool of choice [3] to assist the clinicians and follow-up of patients with prostatic abscess is transrectal ultrasonography of the prostate. The most common finding is presence of one or more hypoechoic areas, containing thick liquid primarily in the transition zone and in central zone of the prostate, permeated by hyperechoic areas with distortion of the anatomy of the gland. Transrectal sonography usually underestimates the real periglandular extension of the abscess. Detecting periprostatic extension, particularly to the ischio-rectal fossa and perineum, is important, as perineal drainage is easier and expected to be more successful than the TUR drainage [4, 5].

DISCUSSION

The prostatic abscess may progress to sepsis and death if not treated in time. Thus, an accurate

Treatment of prostatic abscess is parenteral broad-spectrum antibiotic and drainage. It is generally accepted that surgical drainage is the most important step in the treatment of prostatic abscess. Earlier, perineal incision and drainage was recommended. However, later transurethral resection of entire gland became the treatment of choice. Problems of this technique were the risk of anaesthesia, dissemination of infection, incomplete drainage of multiloculated or peripheral abscesses, and retrograde ejaculation.

CT guided percutaneous drainage (perineal or transrectal), or more often transrectal ultrasound-guided drainage [6] allows rapid and effective evacuation of the prostatic abscess and is now the procedure of choice. It is less invasive method and has a lower risk of complications, such as retrograde ejaculation especially in relatively young patients. TUR drainage should be reserved for patients with multiple and diffuse prostatic abscesses or when aspiration does not show complete resolution.

Hence young adult patients coming with retention of urine, dysuria, perineal pain and fever must be investigated for prostatic abscess.

In the absence of a urology set up, aspiration and perineal drainage is still the treatment of choice in prostatic abscess.

REFERENCES

1. Weinberger M, Cytron S, Servadio C, Block C, Rosenfeld JB, Pitlik SD; Prostatic abscess in the antibiotic era. *Rev Infect Dis.*, 1988; 10: 239-49.
2. OP Kalra, NK Agrawal, SK Sharma, V Sakhuja, KS Chugh; Acute bacterial prostatitis with giant prostatic abscess. *Indian J Nephrol.*, 2002; 12: 88-89.
3. Peeling WB, Griffiths GJ; Imaging of prostate by ultrasound. *J Urol.*, 1984; 132: 217-24.
4. Gan E; Transrectal ultrasound-guided needle aspiration for prostatic abscesses: an alternative to transurethral drainage? *Tech Urol.*, 2000; 6: 178-180.
5. El-Shazly M, El-Enzy N, El-Enzy K, Yordanov E, Hathout B, Allam A; Transurethral Drainage of Prostatic Abscess: Points of Technique. *Nephro-Urol Mon.*, 2012; 4(2): 458-61.
6. Bachor R, Gottfried HW, Hautmann R; Minimal invasive therapy of prostatic abscess by transrectal ultrasound-guided perineal drainage. *Eur Urol.*, 1995; 28(4): 320-4.
7. Jang K, Lee D H, Lee S H, Chung H B; Treatment of Prostatic Abscess: Case Collection and Comparison of Treatment Methods *Korean J Urol.*, 2012; 53: 860-864.