MANAGEMENT OF PROSTATIC ABCESS - TRUS GUIDED ASPIRATION VS TRANSURETHRAL DEROOFING

Urology

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ABSTRACT

BACKGROUND: Transrectal ultrasound is particularly useful for early recognition and treatment of prostatic abscess. Simple drainage is the treatment of choice done by transrectal ultrasound guided or transurethral deroofing. Prostatic abscess can be drained by both transrectal aspiration and by transurethral deroofing. Both procedures have advantage and disadvantage.

AIM AND OBJECTIVE: To compare the outcome of both TRUS guided aspiration and transurethral deroofing of prostatic abscess.

METHODS AND MATERIALS: This is a randomized, clinical study. Patient admitted with features of fever with or without supra pubic pain or with tender and fluctuant swelling in prostate in our hospital from JAN 2016 to DEC 2017 are evaluated for prostatic abscess by TRUS or MRI. Patient are randomly selected and undergone either of TRUS guided aspiration or transurethral deroofing done. All the patient are screened by patient preadmission questionnaire. TRUS. Urine culture and associated co morbidities are noted. Drainage fluid sent for culture sensitivity. Post drainage complications in both procedure are compared.

RESULTS: All patient had abscess size more than 20 cc by TRUS. Transurethral drainage has complications of retrograde ejaculate in patients (33%), incontinence in patients (33%), no residual abscess and bulbar urethra stricture urethra in one case. TRUS guided aspiration has complications of residual (60%) and no retrograde ejaculate and incontinence.

CONCLUSION: TRUS guided aspiration has less complications except for high chance of residual abscess requiring reaspiration and long hospital stay compared with transurethral drainage. TRUS guided aspiration has less complications compared to transurethral aspiration. Transurethral drainage has short hospital stay and complete cure of disease.

KEYWORDS

INTRODUCTION: Prostatic abscess is uncommon in clinical practice due to early use of antibiotics. Due to increase in incidence of diabetes mellitus and immunosuppressive patients, incidence of prostatic abscess is also increasing. It is often misdiagnosed and improperly treated leading to serious and life threatening complications. Transrectal ultrasound is particularly useful for early recognition and treatment of prostatic abscess. Simple drainage is the treatment of choice done by transrectal ultrasound guided or transurethral deroofing. Prostatic abscess can be drained by both transrectal aspiration and by transurethral deroofing. Both procedures have advantage and disadvantage.

AIM AND OBJECTIVE: To compare the outcome of both TRUS guided aspiration and transurethral deroofing of prostatic abscess.

METHODS AND MATERIALS: This is a randomized, clinical study. Patient admitted with features of fever with or without supra pubic pain or with tender and fluctuant swelling in prostate in our hospital from JAN 2016 to DEC 2017 are evaluated for prostatic abscess by TRUS or MRI. Number of patient included in the study is 15, all were of low socioeconomic status. All patient diagnosed with prostatic abscess of size more than 1cm are included in our study. Two patients are of post turp status done 1 week back are included in the study. Patient are randomly selected and undergone either of TRUS guided aspiration or transurethral deroofing done. All the patient are screened by both pre and post drainage TRUS. Urine culture and associated co morbidities are noted. Drainage fluid sent for culture sensitivity. Post drainage complications in both procedure are compared.

RESULTS: Table 1 - Comparing The Two Procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>TRANURETHRAL DRAINAGE</th>
<th>TRUS GUIDED</th>
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<tbody>
<tr>
<td>Number of cases</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Pt with diabetes</td>
<td>6</td>
<td>9</td>
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Patients with prostatic abscess were of median age of 40. All patient with diabetes had uncontrolled blood glucose level. Few patients say that they had normal glucose level prior to prostatic abscess. All the patients had unilocular abscess observer with TRUS. Average volume of abscess was 59.2, the maximum was 80 cc and the minimal was 26 cc. Comparing the two procedures patient are comfortable with TRUS guided aspiration done immediately after TRUS. Procedure time is short and no need for anaesthesia or lithotomy position. But patient undergone TRUS has high chance of residual abscess requiring reaspiration about 60%. In Transurethral deroofing apart from positioning, patient becomes pain free, less chance of residual abscess and duration of stay is short.

Fig1: transurethral deroofing       fig2: TRUS guided aspiration
In this study we compared the outcome and complications associated with transurethral deroofing and TRUS-guided needle aspiration. Of the 15 cases of prostatic abscess diagnosed clinically and by TRUS were managed with transurethral deroofing or TRUS guided needle aspiration randomly. All patient had abscess size more than 20 cc by TRUS. Transurethral drainage has complications of retrograde ejaculation (33%), incontinence (33%), no residual abscess and bulbar urethra stricture urethra (one case). TRUS guided aspiration has complications of residual (60%) and no retrograde ejaculation and incontinence. Because no residual abscess detected in transurethral deroofing group there is reduced hospital stay compared to TRUS group. TRUS group has high chance of recurrence and residual abscess.

CONCLUSION:
Though prostatic abscess is uncommon, can be seen strongly associated with diabetes mellitus. TRUS-guided aspiration has less complications except for high chance of residual abscess requiring reaspiration and long hospital stay compared with transurethral drainage. TRUS guided aspiration has less complications compared to with transurethral drainage. Transurethral drainage has short hospital stay and complete cure of disease. It can cause external sphincter damage, retrograde ejaculation, incontinence and post op bulbar urethra stricture.

Reference: