

## FISTULAE FOLLOWING PROSTATIC ABSCESS DRAINAGE: RARE COMPLICATIONS

### Urology

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### ABSTRACT

Prostatic abscess is severe infectious condition of the prostate. Prostatic fistulas communicating with the rectum or perineal skin are unusual complications of prostatic abscess. Over period of five years twenty three patients underwent intervention for prostatic abscess out of which two cases of prostatic abscess developed prostatic fistula. In one case recto-prostatic fistula was found postoperatively. The fistula healed spontaneously. Second case presented later with urethra-cutaneous fistula managed by excision of tract with anastomotic urethroplasty. These cases highlight the importance of surgical drainage for the treatment of prostatic abscess and that conservative treatment can be a safe and effective approach for an associated recto-prostatic fistula while urethra-cutaneous fistula requires urethroplasty.

### KEYWORDS

#### INTRODUCTION

Prostatic Urethral fistula (recto- urethral/ urethra-cutaneous) is an extremely rare condition. A rectourethral fistula is extremely uncommon, with an incidence of 0.5 per 100,000 per year<sup>1</sup>. It can occur following, inflammatory bowel disease, urological procedures, colorectal surgeries, prostate abscess, prostatic tuberculosis, trauma and other rare causes<sup>1</sup>. Interventions such as radical prostatectomy, radiotherapy, TURP, brachytherapy etc. may lead to rectourethral fistula<sup>2</sup>.

The diagnosis of prostatic fistula can be made with the investigations like cystourethroscopy, colonoscopy, and a contrast study of the rectum or CT scan of the abdomen and pelvis<sup>3</sup>. At present the most common causes of prostatic fistula are radical prostatectomy and radiotherapy for carcinoma prostate and surgical intervention remains the best treatment option. However, surgical repair is challenging without any standardized approach<sup>2</sup>.

Prostatic fistula associated with prostatic abscess can either be due to spontaneous rupture or following aggressive drainage either transurethral or per rectal drainage.

In this article we focus on two cases of prostatic abscess following intervention presented as prostatic-urethral fistula. Management of these fistula depends on multiple factors. It varies from aggressive approach like surgical exploration with colonic diversion or conservative management without any diversion.

#### MATERIALS AND METHODS

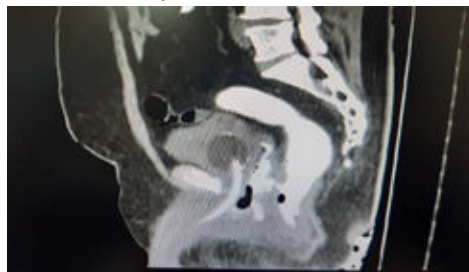
We retrospectively analysed twenty three cases of prostatic abscess out of which two cases developed prostatic fistula following prostatic abscess drainage. Over period of five years twenty three patients underwent intervention for prostatic abscess.

All cases included medical history, physical examination, routine blood tests, urine analysis with culture. Prostatic abscesses were diagnosed with either CT scan or Transrectal Ultrasound. All patients were initially treated with broad spectrum parenteral antibiotics and later changed according to culture results, during their hospital stay.

22 of these patients, prostatic abscess was drained by Transurethral deroofing of abscess. In One patient as abscess was extending along corpus spongiosum, we drained it through perineal incision. Out of 23, two patients presented with urethral fistula.

**Case one:-** Sixtyseven years gentleman known diabetic admitted with acute retention, lower abdominal pain and features of sepsis since 5 days. On examination found to have tender prostatomegaly with areas of boggy swelling. Transrectal ultrasound was suggestive of Prostatic abscess. Patient underwent transurethral deroofing of

abscess. Patient recovered well postoperatively. Catheter was removed on post-operative day 3. Post-operative day 4 patient complained of passing of urine through rectum. CT Pelvis was done suggestive of ill defined collection with air pockets in region of prostate and fistulous tract extending from lower rectum into the collection {Figure 1}. Ascending urethrogram was suggestive of prostaticorectal fistula {Figure 2}. He was managed conservatively with foley catheterisation without any fecal diversion.



**Figure 1:- CT image of recto-prostatic**



**Figure 2:- Ascending Urethrogram recto-prostatic fistula**

**Case two :-** Sixty-five year gentleman with uncontrolled diabetes, known case of BPH with lower urinary tract symptoms on irregular treatment since 3 years. Presented with severe perineal pain, fever, urinary retention since 3-4 days. On examination had suprapubic palpable bladder, boggy, tender swelling in periurethral region extending from distal penile to bulbar urethra. CT scan was suggestive of emphysematous prostatic abscess extending along corpora cavernosa. Patient underwent suprapubic catheterisation and perineal drainage of abscess which was extending along corpora cavernosa and proximally communicating with prostatic abscess. Patient was asymptomatic for 1 year, then started with urine leak through perineum and presented to us. He also complained of decreased flow.

On examination found to have perineal fistula with two external openings along the previous scar. On Ascending urethrogram suggestive of urethra-cutaneous fistulae {Figure 3} Patient underwent excision of fistula tract with anastomotic urethroplasty.



**Figure 3:-Ascending Urethrogram-Urethrocutaneous fistula**

### CONCLUSION

Prostatic abscess is not uncommon. It needs early diagnosis and intervention. As two patients out of 23 developed urethral fistulae, the follow-up of these patients is important. In our two cases, one case with rectoprostatic fistula was managed conservatively with urinary diversion, considering the basic principle that if there is no distal obstruction, then a non-epithelialised tract will heal. In the second case, as it was associated with urethral narrowing, an epithelialised tract required surgical intervention. So urinary diversion alone can be treatment in selected cases, while urethra-cutaneous fistula needs surgical intervention.

### DISCUSSION

Prostatorectal fistula is a rare condition. Major clinical descriptions are not found in the literature where the problem is mostly dealt with in the form of case reports.

Cystoscopy is the gold standard of imaging for rectoprostatic fistula with a sensitivity of 80% to 100%<sup>4</sup>. The management varies, with conservative and surgical therapies both being viable options based on the patient's condition and local availability of urological expertise. Consequently, there is no consensus in for a gold standard of care for these fistulae. Weinberger et al reviewed 269 cases of prostatic abscess without mentioning gas formation or emphysematous change and found eight (2.9%) cases of spontaneous perforation into the rectum<sup>5</sup>. Tuberculosis-related rectoprostatic fistula has also been reported.

Although urinary diversion is necessary, fecal diversion remains controversial in the treatment of rectoprostatic fistula associated with prostatic abscess.

**Financial Support :** None

**Conflict of interest:** None

### REFERENCES

1. Algorithm-based multidisciplinary treatment approach for rectourethral fistula. Keller DS, Aboseif SR, Lesser T, Abbass MA, Tsay AT, Abbas MA. *Int J Colorectal Dis.* 2015;30:631–638.
2. York Mason procedure to repair iatrogenic rectourinary fistula: our experience. Falavolti C, Sergi F, Shehu E, Buscarini M. *World J Surg.* 2013;37:2950–2955.
3. York–Mason procedure for repair of recto– urinary fistulae: a 40– year experience. Hadley DA, Southwick A, Middleton RG. *BJU Int.* 2012;109:1095–1098.
4. Enterovesical fistula caused by a bladder squamous cell carcinoma. Yang C-HO, Liu K-H, Chen T-C, et al. *World J Gastroenterol.* 2009;5:4215–4217.
5. M. Weinberger, S. Cytron, C. Servadio, C. Block, J.B. Rosenfeld, S.D. Pitlik Prostatic abscess in the antibiotic era *Rev Infect Dis*, 10 (1988), pp. 239-249