Scientific Research Publishing

Open Journal of Urology, 2024, 14, 262-266
https://www.scirp.org/journal/oju
ISSN Online: 2160-5629
ISSN Print: 2160-5440

Treatment of Prostatorectal Fistula by Transanorectal Route: About an Observation

Mohamed Mahmoud Beya, Ahmed Salem Terouzi Y. Tfeil, Diagana Mouhamadou

Urology Department, Cheikh Zayed Hospital, Nouakchott, Mauritania
Email: mahmoudboya4@gmail.com

How to cite this paper: Beya, M.M., Tfeil, A.S.T.Y. and Mouhamadou, D. (2024) Treatment of Prostatorectal Fistula by Transanorectal Route: About an Observation. *Open Journal of Urology*, **14**, 262-266.
https://doi.org/10.4236/oju.2024.144026

Received: March 18, 2024
Accepted: April 27, 2024
Published: April 30, 2024

Abstract

This is a 54-year-old patient admitted for the management of urinary leakage through the anus that had been occurring for a month, in whom the diagnosis of a prostatorectal fistula was made. The fistula was successfully treated by a transanorectal approach using the York Masson procedure.

Keywords

Fistula, Prostate, Rectum, York Masson

1. Introduction

Prostato-rectal fistulas (PRF) are rare but disabling situations, most often complications of rectal or prostatic surgery but sometimes of infectious, neoplastic, post-radiation or traumatic origin. The difficulty of treatment lies in its deep location with difficult access and the risk of damage to the fecal or urinary continence system.

Through an observation, we wanted to identify an etiological and diagnostic aspect of a prostatorectal fistula treated at the Cheikh Zayed hospital in Nouakchott.

2. Observation

The 54-year-old MS patient, first diabetic, was seen for the management of acute urinary retention in a febrile context suggestive of acute prostatitis. The patient was referred to us 45 days later when he noticed urine passing from the anus. The objective clinical examination was a patient wearing a Foley CH18 urinary catheter bringing back little cloudy urine. The biological assessment carried out shows high blood sugar at 2.5 g/l and normal kidney function. The vesicoprosthetic ultrasound shows an empty bladder with a bloated urinary catheter which

appears to be in the prostatic position. Rectal examination did not reveal any fistulous orifice.

Urethrocystoscopy reveals a fistulous orifice above the mentanum wart with fibrous rearrangement around it (Figure 1), slightly hypertrophied prostate cheeks and a struggling bladder.

Retrograde urethrocystography showed the presence of a retro-rectal fistula with passage of contrast product around the prostate area.

The patient was placed on appropriate antibiotic therapy for two weeks with an indwelling urinary catheter. Given the persistence of urinary leakage, it was decided to do a digestive diversion via a colostomy then 1 month after a surgical cure of the fistula via a transanorectal approach using the York Masson method (Figure 2, Figure 3).

The urine was drained for 21 days by a transurethral bladder catheter and the postoperative course was simple. Antibiotic therapy and residue-free diet were not necessary because the patient had a lateral colostomy. The patient resumed normal urination after removal of the catheter. 2 months later the patient had restoration of digestive continuity. The results were good after 1 year: his urination is indeed normal and his anal continence is perfect.

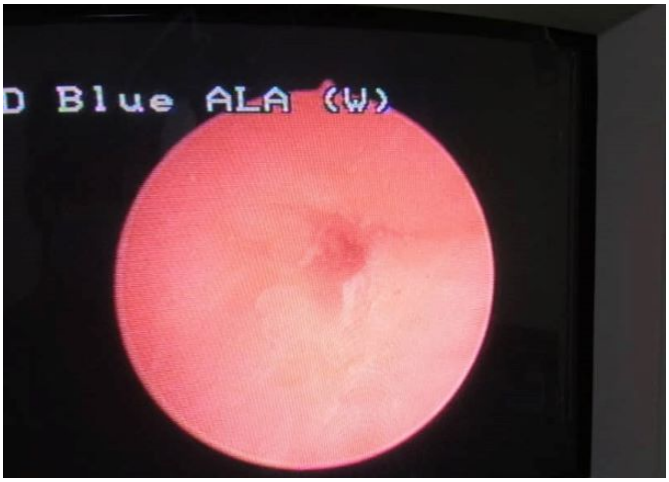

Figure 1. Cystoscopic view of the fistula orifice.

Figure 2. The York Mason process: patient position.

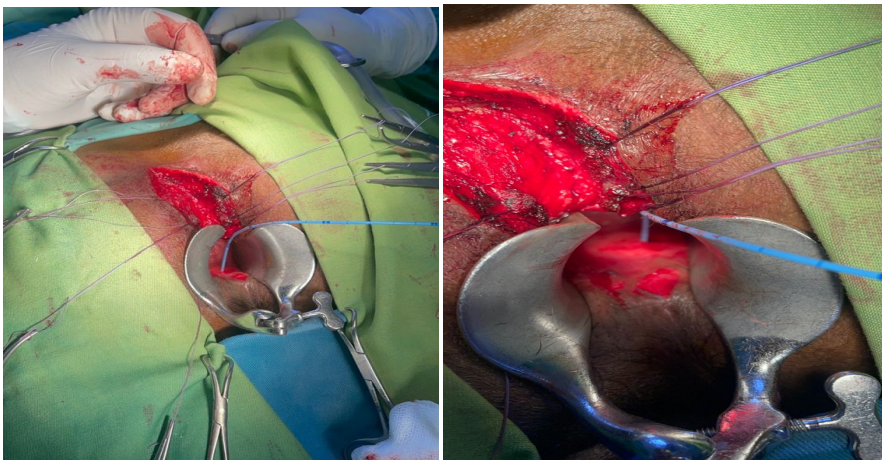

Figure 3. Incision and catheterization of the fistulous orifice.

3. Surgical Technique

The patient is placed in the prone position, the table broken at the middle part (Figure 2).

The incision goes from the anal margin to the left part of the coccyx. Release of the coccyx can be severed if necessary.

The sphincter is split on the midline by identifying all its bundles with wires. This precaution will allow an anatomical reconstruction of the different muscular heads of the anal sphincter.

The rectum is in turn opened on its posterior surface until the fistula is clearly exposed. A self-static Beckman or Gosset retractor is then put in place and landmarks are placed around the fistulous orifice.

The fistula sits above the anal sphincter, at the anorectal angle—incision of the rectal wall. The perifistulous tissues are excised. Dissection and complete excision of the fistula tract are facilitated by the prior placement of a ureteral probe through the fistula. The prostate plane is closed with absorbable suture in one or two planes. The rectal plane is closed in two planes. The first takes the muscularis and the submucosa and the second only the mucosa.

Then the closure of the posterior wall of the rectum and anatomical reconstruction of the sphincter is performed (Figure 3).

4. Discussion

Prostato-rectal fistulas are rare [1]. In the literature, the cases reported are either unique or relate to short series [2]. The causes are diverse and most are iatrogenic or traumatic. Infectious etiologies are even rarer [3] and generally occur in immunocompromised subjects.

Our patient is a diabetic subject who has not yet been diagnosed and who unfortunately had not only a delay in taking it but also trauma during the insertion of the urinary catheter. The occurrence of prostato-rectal fistula seems to be due to this type of probing. Clinically the main reason for consultation is the emission of urine from the rectum at the time of urination which is a constant and

specific sign of urethro-prostatorectal fistula besides rarely objective signs are pneumaturia and fecaluria which we do not have noted in our patient and are not in favor of the importance of the fistula according to series of literature. The diagnosis is sometimes by the demonstration of the fistula on the TR but this was not the case in our observation or the fistula was objectified by an uretrocystoscopy and an ureterocystography retrograde and urination. According to the literature, urethrocystoscopy is a very sensitive technique to diagnose and localize fistula when used routinely [4].

The treatment of fistulas in general consists of resection of the fistulous tract, suturing and, if necessary, interposition of a support tissue.

Small early postoperative fistulas should first be treated with urinary drainage alone. In the event of failure of urinary drainage [3] some authors recommend carrying out a double urinary and digestive diversion then intervening around the third/sixth month if the fistula persists. The third step will be the reestablishment of digestive continuity if the fistula has closed [5].

FPRs can be approached via several routes:

- Kraske transacral posterior approach provides excellent exposure to the fistula via the endo or extra-rectal route but with a risk of osteitis due to the bone section. The perineal route allows the fistula to be approached without dissection of the sphincter but a risk of incontinence and impotence.
- The trans-abdominal approach allows the interposition of the omentum, but only gives limited access, especially for closing the urethral orifice. In our observation we opted for a transanorectal approach because of these multiple advantages [1]:

It allows good exposure of the fistula through non-scarred tissue and regardless of the level of communication. It can therefore be used even in patients who have already undergone surgery [2].

It avoids the vascular-nervous pedicles and the pelvic floor which are important for sexual function and urinary continence. The after-effects of the operation are generally simple. No case of recurrence or anal incontinence has been described with this route [6], but the York Mason route has limitations especially when it comes to small early postoperative fistulas usually treated by combined endovesicoprostatic and endorectal routes and postradiation fistulas which will require interposition of vascularized tissue.

In our case, the patient had a colostomy before the surgical procedure but this procedure does not seem to affect the success of the York-Mason procedure according to Stephenson and Middleton [6] performed colostomies in seven of 13 fistula operations and showed that this procedure is not necessary. Patients who did not undergo a colostomy had a better quality of life while awaiting fistula correction.

However, Al-Ali *et al*. [7] performed both procedures, a cystostomy and a colostomy, before correcting the fistula and observed spontaneous closure of the fistula in 46.5% of cases after six months.

5. Conclusion

Prostataorectal fistulas are often iatrogenic, manifested by leakage of urine through the anus during urination. Their diagnoses are mainly based on radiological examinations, particularly retrograde urethrocystography. Due to their difficulty in accessibility, they have always represented a therapeutic challenge for the surgeon. Therefore, it is imperative to choose an approach that allows good exposure with the minimum of complications. The York Mason technique is the ideal route if all the steps are followed correctly.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Nouri, M., Tazi, K., El Fassi, J., Ibn Attya, A., Hachimi, M. and Lakrissa, A. (1999) Traitement des fistules uréthro-rectales. A propos de 5 cas [Treatment of Urethro-Rectal Fistulas. Apropos of 5 Cases]. *Progres en Urologie: Journal de l'Association Francaise d'Urologie et de la Societe Francaise d'Urologie*, **9**, 137-141.

[2] Harris, C.R. and McAninch, J.W. (2017) Rectourethral Fistulas Secondary to Prostate Cancer Treatment: Management and Outcomes from a Multi-Institutional Combined Experience. *The Journal of Urology*, **197**, 191-194.

[3] Massalou, D., Chetrus-Mariage, D. and Baqué, P. (2015) York-Mason Repair of Recto-Urethral Fistula. *Journal of Visceral Surgery*, **152**, 185-188. https://doi.org/10.1016/j.jviscsurg.2015.03.002

[4] Boushey, R.P., Mcleod, R.S. and Cohen, Z. (1998) Surgical Management of Acquired Rectourethral Fistula, Emphasizing the Posterior Approach. *Canadian Journal of Surgery*, **41**, 241-244.

[5] Stephenson, R.A. and Middleton, R.G. (1996) Repair of Rectourinary Fistulas Using a Posterior Sagittal Transanal Transrectal (Modified York-Mason) Approach: An Update. *Journal of Urology*, **155**, 1989-1991. https://doi.org/10.1016/S0022-5347(01)66071-3

[6] Middleton Jr, A.W. (1987) Radical Prostatectomy for Carcinoma in Men over 69 Years Old. *Journal of Urology*, **138**, 1185-1188. https://doi.org/10.1016/S0022-5347(17)43544-0

[7] Al-Ali, M., Kashmoula, D. and Saoud, I.J. (1997) Experience with 30 Posttraumatic Rectourethral Fistulas: Presentation of Posterior Transsphincteric Anterior Rectal Wall Advancement. *Journal of Urology*, **158**, 421-424. https://doi.org/10.1016/S0022-5347(01)64493-8