

CASE REPORT

A Case Study Report on Anorectal fistula

Padmaja Santosh Kore*, Anuradha More¹, Abhishek Nemmaniwar¹, Pratiksha Raut², Shweta Ghodke², Mohini Kucekar¹

Progressive Education society's Modern College of Pharmacy, Yamunanagar, Nigdi, Pune-411044

²Vishwakarma Institute of Pharmacy, Kondhawa, Pune

ABSTRACT

Anal fistula is a frequent benign illness, however the complex variety poses a challenge in clinical practice. This case was notable for its extended medical history and complicated clinical presentation. The disease's appearance is complex and unusual due to its long-term development. We made a precise diagnosis of anal fistula using medical imaging examinations, and subsequently performed a fistulectomy to correct it. During the post-operative period, the patient made a good recovery. The treatment of complex anal fistulas is the most important factor to consider. Currently, surgery is the most common way of treatment, with the goal of improving prognosis and lowering complications. Anal fistula can be treated with stem cells, which are both safe and effective.

Key words: Treatment of a complex anal fistula, Case report

Received 11.06.2022

Revised 19.07.2022

Accepted 28.09.2022

How to cite this article:

Padmaja S K, Anuradha M, Abhishek N, Pratiksha R, Shweta G, Mohini K. A Case Study Report on Anorectal fistula. Adv. Biores. Vol 13 [5] September 2022. 225-229

INTRODUCTION

Surgeons around the world have long struggled to accurately diagnose and treat complex perianal fistulas. An inflamed anal gland is the most common cause of perianal abscesses. Anal abscesses are caused by obstruction of these glands, which causes stasis, bacterial overgrowth, and eventually abscesses [1]. Anal abscesses can occur in the intersphincteric groove or in an infected anal fissure. Proctodeal glands, which arise from the intersphincteric plane and perforate the internal sphincter with their duct, are the most common cause of perianal abscesses. The abscesses may break through into the anal canal and resolve completely [2], but they can also expand through the submucosa, intersphincteric, or trans sphincteric routes, resulting in fistulae.

The most common routes of escape for these abscesses are downward extension to the anoderm (perianal abscess) or across the external sphincter into the ischioanal fossa (ischioanal fossa abscess). Dissemination to the supralelevator space or the submucosal plane is a less prevalent pathway of spread. When an abscess is surgically or spontaneously drained, the septic foci may persist and the draining tract may become epithelialized, resulting in a chronic fistula-in-ano. Approximately 60% of abscesses result in the establishment of a fistula [3].

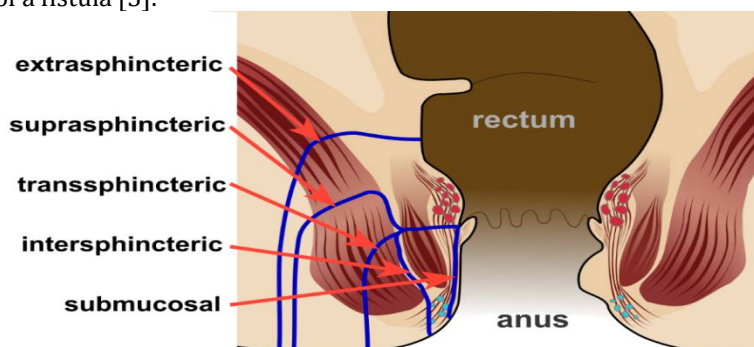


Figure-1: Types of anorectal fistula ^{Kore et al}

CASE REPORT:

A 32-year-old woman came to our surgical clinic complaining of right buttock soreness and discomfort in the sitting posture for more than 15 days. In addition, the patient was experiencing constipation and gastrointestinal distress. There was a fibrous mass in the anorectal region, as well as significant pus discharge. An extra-sphincteric fistulous tract extending from the external sphincter anteriorly up to the posterior wall of the vagina appeared as a massive and persistent abscess in the subcutaneous region of the right buttock in the presented case. For itching and redness, the patient was given Itraconazole (200 mg capsules p.o.) for more than a month and levocetirizine hydrochloride (5 mg) for 15 days. The infection was not entirely treated since the treatment was not strictly followed according to the physician's instructions. Missed medicine doses led in the development of resistance, as evidenced by patient complaints of acute itching even after 30 days of treatment. The patient was prescribed luliconazole cream (1%) for topical treatment in addition to oral antifungal medications.

Itraconazole is largely eliminated as inactive metabolites in urine (35%) and faeces (54%) within one week of an oral solution dose, according to the pharmacokinetic profile. Itraconazole and its active metabolite hydroxy-itraconazole are excreted in the urine in less than 1% of an intravenous dose. There was a clear risk of medication buildup due to the frequent GI distress. Antibiooma, characterized by the creation of a localized pathology surrounded by thick fibrous tissues in response to long-term antibiotic treatment, was found as a stiff fibrous mass in the anorectal region. A tough fibrous swelling accompanied by painful or painless swelling, intermittent fever, and constitutional symptoms is a sign of a developed antibiooma. There was nothing else in the formation's history that could be linked to the formation of fibrous mass.

Surgery:

Fistulectomy was performed based on the patient's symptoms. The patient was told to sleep on an empty stomach the next day. Although an MRI scan was required prior to surgery, it was postponed since the patient was experiencing fever and chills as a result of the severe pus production. Initially, surgery was conducted due to the patient's condition. There was a huge pus sac inside the right buttock when it was discovered. During the surgery, a large lump of fibrous tissue mass was discovered. The lump was sent for biopsy to determine the specific nature of the lump. It was also suggested that a pus culture be performed to determine the particular type of infection.

Microbiology report (Pus culture)

There were few epithelial cells in the fluid, but there were a lot of pus cells. Gram negative bacilli were found in the culture. Escherichia Coli generating Metallo-Beta-Lactamase was isolated (E-Coli-MBL type). Amikacin, Gentamicin, Doxycycline, and Colistin are all effective against the bacterium. Because the isolate produced Metallo β -Lactamase (MBL), it was resistant to all penicillins, cephalosporins, and carbapenems.

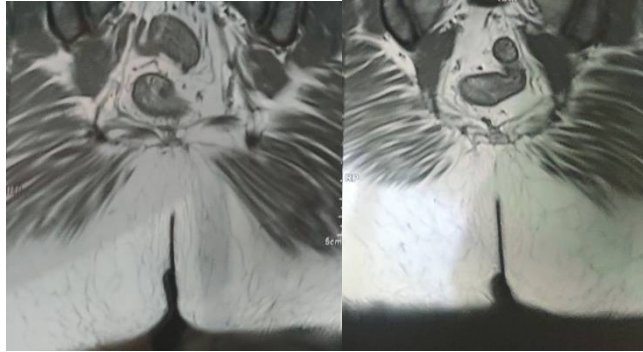
Histopathology report (Biopsy report)

The existence of a few irregular greyish white tissue fragments aggregating to 0.90.50.5 cm was confirmed by histological results. Microscopically, the fibrovascular adipose and collagenous tissue are fractured, with a widespread sparse mononuclear cell infiltrate. There were acute inflammatory exudates seen. In the portions, there was no evidence of TB or cancer.

Post-surgical drugs: After surgery, broad spectrum antibiotics were administered as injections. Eventually on day-3, lump was dissolved up to 80%. After the pus culture report, the infection was treated with the amikacin, a selective drug for E. Coli MBL.

Ultrasonography results

The ultrasonography of the lump revealed the presence of an inflammatory lesion. In order to achieve the clear picture of lesion, it was advised to undergo MRI scan.

MRI scan report (Was performed after surgery)**Figure 2: MRI scan of pelvis region**

Multiplanar, multiecho MR of the pelvis was performed. It was found that, there was ill defined subcutaneous edema seen in the perianal region and around natal cleft on right side with post operative changes are seen. Superiorly, the tract transverses in trans sphincteric plane lateral to ischio-rectal and 3 mm thickness. Ill defined edema like signal seen in the right ischioanal fossa with edema and thickening of right external sphincter. A horse shoe shaped collection seen on right side in intersphincteric plane from 11 o' clock to 6 o' clock position of sphincter complex and doubtful internal opening at 6 o' s clock position. The collection measures 3.4×0.4 cm in size. Small collection of 12×6 mm size seen further extending from external sphincter anteriorly upto posterior wall of vagina. There was no supralelevator extension. Urinary bladder appears normal. Uterus was found normal in size. Small nabothian cyst seen in the cervix. A 16×12 mm cyst seen along the anterior wall of vagina on right side appearing hyperintense on both T₁ and T₂. Pelvic rest of the soft tissues are normal. No free fluid was seen.

Ill defined subcutaneous edema in perianal region and around natal cleft on right side with post operative changes. Superiorly the inflammation transverses along trans sphincteric plane through ischioanal fossa with thickening of right external sphincter. A small horse shoe shape abscess seen on right side in intersphincteric plane from 11 o'clock to 6 o'clock position of sphincter. Small abscess further extending from external sphincter anteriorly up to posterior wall of vagina. A small greater duct cyst along anterolateral wall of vagina.

Post-surgical treatment and care:

The patient was called for the follow-up each alternate day. The patient was complaining about severe shivering during the day time also. It may be because of the pus infection. Though the pus was drained during the surgery, it was difficult to treat organized pus. To remove overall infection from the body, patient was on the Amikacin injection on each alternate days. Total of 10 injections were administered to the patient. Gradually, the infection was reduced and the underlined complaints of the patient were cured due the course of higher antibiotic. Due to sensitivity of the bacteria (E-Coli MBL) to amikacin, the infection was cured faster. Also, along with the course of injections, regular dressing was performed and patient was asked to maintain the total hygienic conditions. Also, it was asked to regularly use sitz bath with warm water and 10% betadine solution. After regular dressing and injections, patient was recovered.

However, after 2 months, there was again a secretion of pus from the cut. The patient was administered with the antibiotics for the same. Patient was in anxiety in her mind that, there is the obvious need of total cure. As per the reports of reoccurrence of fistula and the panic surgeries, there was need of total closing of all the fistula tracts. Along with the allopathic and surgical treatment, patient took the ayurvedic medicines named, PF₂ cure. The observation was, irritation of rectum region along with swelling. The patient consulted the company about the symptoms, but it was known from the consulting physician that, the hidden problem is exposing. The pills container was composed of 7 capsules in total. After 7 days, it was seen that pus discharge was completely stopped and the condition was normalized.

DISCUSSION

A fistula in the ano-rectal region represents the chronic phase of ongoing infection at perianal region which represents granulating tract between the perianal region/ perineum and anorectum. The typical characteristics of fistula includes a tract with a secondary (external) and primary (internal) opening. However sometimes the tract may become obliterated and the remnant may appear to be a sinus.

Therefore, always, perianal sinus should be considered as a form of perianal fistula [3]. In the present case, MRI scan reveals no obvious evidence of connection between extra sphincteric type of fistula with the rectum. It was seen that the internal opening in the rectum was obliterated over the time. The remaining tract was found to be continued to drain as fistula tract through the levator ani, into the subcutaneous space resulting in to the formation of pus pouch in the right hip. This report was found as the rarest of rare case where anorectal fistula has traversed an unusual course causing a diagnostic dilemma. For instance, it is reported that, a fistula in ano involving and causing septic arthritis of hip [4]. Sometimes it becomes crucial to identify the exact route of fistula. In this case, mapping of the fistula is the commonly faced challenge but not the primary diagnosis. In the present case, the clear picture of fistula was evident after the MRI scan was conducted.

Initially before MRI scan it was observed that, a rigid fibrous tissue mass was present in anorectal region and it can be sensed from vaginal cavity. After taking patient history, it was judged that, the mass which was developed can be a case of antibioma. It could be judged that; course of treatment was discontinued several times. The initial impression of that lump was of soft tissue swelling. Both FNAC and ultrasound scan could clearly diagnose the case hence a MRI of the pelvis was taken up. Several studies have shown that MRI scan can reflect the clear picture of tract mapping as well as it becomes easy for surgeon to decide treatment plan and monitoring therapy [5, 6]. MRI grading classification commonly used is: 0, normal appearance; 1, simple linear inter-sphincteric fistula; 2, intersphincteric fistula with inter sphincteric abscess or secondary fistulous track; 3, trans-sphincteric fistula; 4, trans-sphincteric fistula with abscess or secondary track within the ischioanal or ischiorectal fossa; 5, supralelevator and translevator disease. This MRI grading has been shown to correlate with the outcome: grades 1 and 2 are associated with favorable outcome, while grades 3–5 are associated with less favorable outcome leading to recurrences needing reoperations [7, 8]. With the knowledge about the tract being a grade V complication, only a partial excision with marsupialization was performed to drain the severe abscess from the pus pocket. The concern was to prevent the loss of anal continence. Flatus incontinence can be a big challenge for the surgeon but it could be very embarrassing for the patient [9]. During the post-operative period obliteration of the tract was seen with no loss of sphincter function.

CONCLUSION

Perianal pathologies may appear simple but are very complex. Accurate diagnosis and treatment become a need of the time. MRI is a very useful modality in making a diagnosis and predicting the outcome. When dealing with a fistula-in-ano, proper assessment and mapping of the tract is very important before going in for a definitive surgery.

Conflict of interest

None.

Funding

None.

Ethical approval

Written informed consent was obtained from the patient for publication of this case report and accompanying MRI images.

Author contribution

Dr. Kiran Bhise is an operating surgeon involved, Dr. Padmaja Kore, as assistant professor working in progressive education society's modern college of Pharmacy, Nigdi, involved in involved in writing, data collection and analysis.

REFERENCES

1. Parks AG. (1961). Pathogenesis and treatment of fistula-in-ano. *Br Med J*; 1: 463–9.
2. Hamalainen K P, Sainio A P. (1998). Incidence of fistulas after drainage of acute anorectal abscesses. *Dis Colon Rectum*. 41:1357–1361.
3. Robinson Jr AM, DeNobile JW. (1988). Anorectal abscess and fistula-in-ano. *J Natl Med Assoc* ; 80(11):1209–13.
4. Chen C-W, Wu C-C, Hsiao C-W, Wang S-J, Jao S-W. (2008). Septic arthritis of hip joint secondary to an anal fistula. *J Med Sci*; 28(3):151–4.
5. Spencer JA, Ward J, Beckingham IJ, Adams C, Ambrose NS. (1996). Dynamic contrast-enhanced MR imaging of perianal fistulas. *AJR Am J Roentgenol*;167(3):735–41.

6. Spencer JA, Chapple K, Wilson D, Ward J, Windsor ~~Korath~~ Ambrose NS. (1998). Outcome after surgery for perianal fistula: predictive value of MR imaging. *AJR Am J Roentgenol*; 171(2):403-6.
7. Morris J, Spencer JA, Ambrose NS. (2000). MR imaging classification of perianal fistulas and its implications for patient management. *Radiographics*; 20(3):623-35.
8. Torkzad MR, Karlbom U. (2010). MRI for assessment of anal fistula. *Insights Imag*; 1(May (2)): 62-71.
9. Garcia-Aguilar J, Belmonte C, Wong WD, Goldberg SM, Madoff RD. (1996). Anal fistula surgery. Factors associated with recurrence and incontinence. *Dis Colon Rectum*; 39:723-9.

Copyright: © 2022 Society of Education. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.