CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 5 (2014) 298–301

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

A complex fistula-in-ano presenting as a soft tissue tumor

K.N. Srivastava, Amit Agarwal*

Department of General and Minimal Access Surgery, BL Kapur Superspeciality Hospital, New Delhi, India

ARTICLE INFO

Article history:
Received 9 December 2013
Received in revised form 5 January 2014
Accepted 18 March 2014
Available online 31 March 2014

Keywords:
Fistula in ano
Fistula
Soft tissue mass
Antibioma
Abscess
Perianal

ABSTRACT

INTRODUCTION: Anorectal abscess and fistula are quite commonly encountered diseases. Both of these are the acute and chronic manifestations of the same entity. While abscess are thought to begin as an infection in the anal glands, their spreading into adjacent spaces results in a fistula formation. At many times this spread occurs in a complex pattern which is difficult to map and treat.
PRESENTATION OF CASE: This paper describes a complex perianal fistula that presented as a painless benign lump in the upper outer quadrant of the right buttock. The lump initially thought to be a soft tissue swelling was later diagnosed to be a chronic abscess cavity extending medially toward the anal canal in the form of a complex fistulous tract.
DISCUSSION: Complex perianal fistulas are difficult to treat and are prone to recurrences. Correct diagnosis and characterization of the fistula is essential to optimize the treatment. Clinical examination alone may not give a correct picture of the actual disease, thereby requiring radiological investigations like MRI.
CONCLUSION: Although rare, sometimes common clinical conditions like fistula-in-ano may also present in complex manner. It is important to establish the diagnosis firmly and map the fistula properly before going in for surgery. Complexity of fistulas and improper mapping often leads to recurrences and other complications like incontinence.

1. Introduction

The accurate diagnosis and mapping of perianal fistulas has long been a challenge to surgeons worldwide. Most perianal abscesses originate from an infected anal gland. Obstruction of these glands leads to stasis, bacterial overgrowth, and ultimately abscesses that are located in the intersphincteric groove [1]. These abscesses have several routes of egress, the most common of which are downward extension to the anoderm (perianal abscess) or across the external sphincter into the ischiorectal fossa. Less common routes of spread are to the supralevator space or in the submucosal plane. When the abscess is drained, either surgically or spontaneously, persistence of the septic foci and epithelialization of the draining tract may occur and lead to a chronic fistula-in-ano. About 60% of the abscesses do result into such a fistula formation [2].

In the presented case, there was an extra-sphincteric fistulous tract which extended superiorly, traversed the right ishiorectal fossa, breached the levator-ani plate and presented as a large and chronic abscess in the subcutaneous region of the right buttock.

2. Case report

A 26 years old man presented to our surgical clinic with the complaints of a painless lump in the right buttock region for two and a half years (Fig. 1). The swelling was gradually increasing in size. There was no other significant history that could be linked to the swelling. History of constipation accompanied with use of powdered laxatives was present.

The lump on examination was a non tender freely mobile well defined lump lying superficial in the subcutaneous plane. An initial diagnosis of soft tissue benign tumor was made. As a part of the initial work up all routine blood test along with chest X-ray were done and found to be normal. A fine needle aspiration from the swelling revealed hemorrhagic fluid, smear from which showed inflammatory cells comprising chiefly of polymorphs and a few macrophages. The ultrasonography of the lump also revealed an inflammatory lesion. In view of a non conclusive diagnosis, a decision to get an MRI study was taken.

The MRI study revealed the true nature of the swelling to be an abscess cavity associated to a Grade V perianal fistula via a 7 cm fistulous tract with internal ramifications (Fig. 2). The fistulous tract in its perianal course was seen on the right side in the extrasphincteric region extending superiorly, traversing the right ischiorectal fossa with a likely breech of the right levator ani plate. It seemed to terminate medially with no obvious communication to the rectum.

* Corresponding author at: BL Kapur Superspeciality Hospital, Pusa Road, New Delhi 110005, India. Tel.: +91 9871161611.
E-mail address: amitagarwal1981@yahoo.co.in (A. Agarwal).

http://dx.doi.org/10.1016/j.ijscr.2014.03.018

Fig. 1. The actual position of the lump.

The nature of disease, procedure to be performed and prognosis were discussed with the patient and family. After bowel preparation, the patient was taken to the operation room. Under general anesthesia, the patient was placed in a jack-knife position. An incision was given over the lump and a thick walled abscess cavity was discovered (Fig. 3). The cavity was excised en mass. The communicating tract was identified as a thick tract going medially. The fistula tract was laid open to the level of the levator ani (Fig. 4). At this level, digital examination of the tract was done and no obvious communication to the rectum could be detected. Partial excision and curettage of the tract was done. The edges of the remnant tract were marsupialized to the subcutaneous tissue to prevent it from closing down. The wound was left open and the tract and wound were packed. The post operative period was largely uneventful and the patient was discharged satisfactorily on the first post operative day. He was advised regular dressings in the coming period.

A histo-pathological examination of the specimen obtained showed features consistent with sinus tract with chronic inflammation.

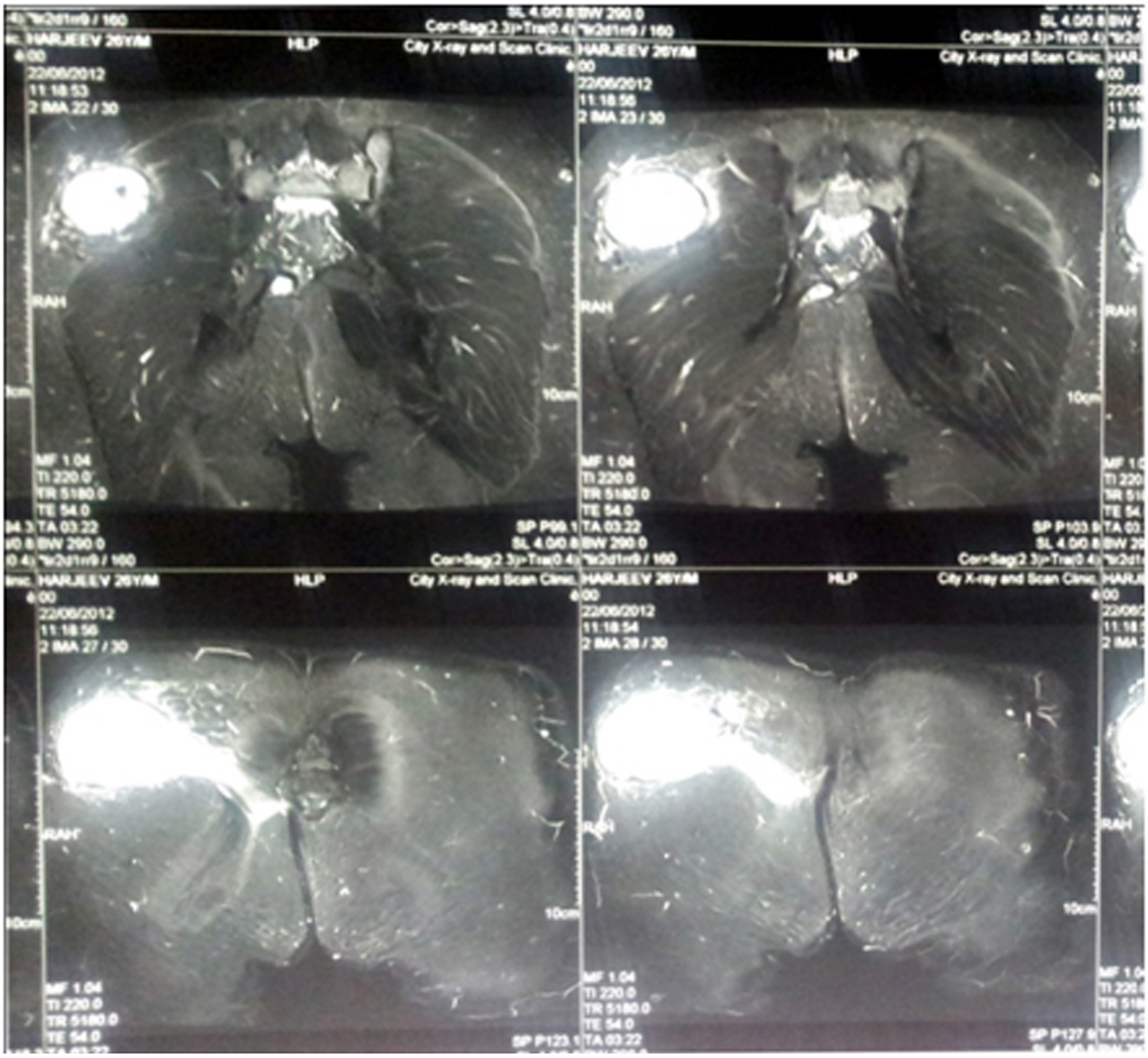

Fig. 2. The pelvic MRI demonstrating the tract and the abscess cavity.

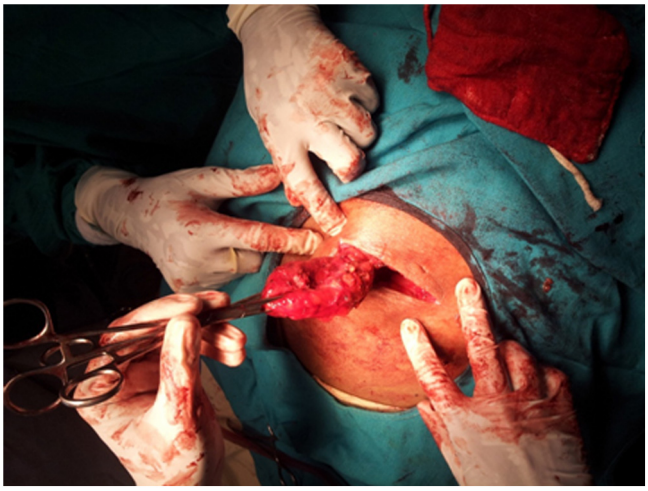

Fig. 3. The thick walled abscess.

Fig. 4. The tract seen as an opening extending deep to levator ani.

In the follow up, a complete resolution of the fistulous tract was seen. The recovery of the patient was satisfactory however a final verdict can only be placed after a long term follow up.

3. Discussion

A fistula-in-ano represents the chronic phase of ongoing perianal infection. It is a granulating tract between the anorectum and the perianal region or perineum. A typical fistula usually consists of a tract with a primary (internal) opening and a secondary (external) opening. However sometimes the tract may become obliterated and the remnant may appear to be a sinus. Therefore, perianal sinus should be considered as a form of perianal fistula [3]. In the presented case, the pelvic MRI of the patient delineated an extrasphincteric type of fistula with no evidence of communication to the rectum. It seems likely that the internal opening in the rectum was obliterated over time. The remnant tract continued to drain causing the fistula to traverse an unusual course through the levator ani and into the subcutaneous space. The result was a chronic abscess cavity in the right hip.

There have been very few case reports where a fistula in ano has traversed an unusual course and caused a diagnostic dilemma. For instance a fistula in ano involving and causing septic arthritis of hip has been reported [4]. It is seen that more commonly the challenge faced with a fistula-in-ano is not with the primary diagnosis but with the mapping of the fistula.

In the case presented, initial diagnosis of a fistula could not be made till the time a MRI was conducted. The initial impression was of soft tissue swelling. Neither an FNAC nor an ultrasound could pick the diagnosis and hence a MRI of the pelvis was taken up. Several studies have shown MRI to be highly useful for tract mapping as well as for predicting the patient outcome, formulating management plan and monitoring therapy [5,6]. MRI grading classification commonly used is: 0, normal appearance; 1, simple linear intersphincteric fistula; 2, intersphincteric fistula with intersphincteric 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, supralevator 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 complicated tact, only a partial excision with marsupialization was performed. The concern was to prevent the loss of anal continence. Flatus incontinence may be a minor complication for the surgeon but it could be very embarrassing for the patient [9]. During the post operative period obliteration of the tract without any loss of sphincter function was seen.

4. Conclusion

Perianal pathologies may appear simple but are often misleading. One must always be vigilant for a more complex and rare diagnosis. 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 images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Srivastava is an operating surgeon involved in data collection and analysis. Agarwal Amit is an operating surgeon involved in writing, data collection and analysis.

References

[1].Parks AG. Pathogenesis and treatment of fistula-in-ano. *Br Med J* 1961;**1**:463–9.
[2].Robinson Jr AM, DeNobile JW. Anorectal abscess and fistula-in-ano. *J Natl Med Assoc* 1988;**80**(11):1209–13.

[3].Kim JW, Kwon SW, Son SW, Ahn DH, Lee KP. Comparative review of perianal sinus and fistula in ano. *J Korean Soc Coloproctol* 2000;**16**:7–11.
[4].Chen C-W, Wu C-C, Hsiao C-W, Wang S-J, Jao S-W. Septic arthritis of hip joint secondary to an anal fistula. *J Med Sci* 2008;**28**(3):151–4.
[5].Spencer JA, Ward J, Beckingham IJ, Adams C, Ambrose NS. Dynamic contrast-enhanced MR imaging of perianal fistulas. *AJR Am J Roentgenol* 1996;**167**(3):735–41.
[6].Spencer JA, Chapple K, Wilson D, Ward J, Windsor AC, Ambrose NS. Outcome after surgery for perianal fistula: predictive value of MR imaging. *AJR Am J Roentgenol* 1998;**171**(2):403–6.
[7].Morris J, Spencer JA, Ambrose NS. MR imaging classification of perianal fistulas and its implications for patient management. *Radiographics* 2000;**20**(3):623–35.
[8].Torkzad MR, Karlbom U. MRI for assessment of anal fistula. *Insights Imag* 2010;**1**(May (2)):62–71.
[9].Garcia-Aguilar J, Belmonte C, Wong WD, Goldberg SM, Madoff RD. Anal fistula surgery. Factors associated with recurrence and incontinence. *Dis Colon Rectum* 1996;**39**:723–9.