CASE REPORT

Unexpected complication after radical (inguinal) orchidectomy: trans-sphincteric anoscrotal fistula

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SUMMARY

Anoscrotal fistula is an extremely rare condition involving an epithelialised tract between the anal canal and scrotal wall. It is more commonly seen as a congenital phenomenon in the paediatric population, and has not previously been described in the literature in adults. We present the case of a man aged 52 years who developed a complex anoscrotal fistula after a radical inguinal orchidectomy for an intratesticular seminoma. A postsurgical wound-site infection developed into a chronically discharging wound refractory to antibiotic treatment prompting further investigation. By way of MRI, a 10 cm long trans-sphincteric anoscrotal fistula was found. The patient was successfully treated by fistuloscopic curettage, internal closure using an Ovesco clip, and negative pressure dressing. We present for the first time a rare anoscrotal fistula in an adult.

BACKGROUND

Radical orchidectomy involves the removal of the testis, epididymis and the surrounding tunica vaginalis in toto, via an inguinal approach. Scrotal incision is to be avoided to reduce theoretical oncological seeding. Common adverse outcomes include infection within the wound-site; however, rare an anatomically unlikely pathology can result. We describe such a case, where diagnosis of the rare complication was critical in its eventual management.

CASE PRESENTATION

We present the case of a man aged 52 years who was found to have a complex anoscrotal perianal fistula after having an open right radical orchidectomy for a malignant testicular lesion. To the best of our knowledge, this is the first published case to date.

The patient initially presented to his local GP with perineal discomfort, malodorous bowel movements, long history of constipation and haemorrhoids, and a palpable firm right scrotal mass. Ultrasound scan revealed a solid 22 mm×19 mm×14 mm lesion arising from the right testicle, prompting referral to our urology service.

Testicular tumour staging including tumour markers (AFP, BHCG, LDH) and CT were all normal. An elective open inguinal radical orchidectomy was performed which was uneventful. The hemiscrotum was intact. Histology demonstrated an intratesticular pT1 seminoma with negative surgical margins.

The procedure was complicated with a surgical site infection 1 week postoperative. Despite oral

antibiotics, it progressed and was incised and drained. Over the next 3 weeks, a scrotal abscess developed. This required an incision and drainage via a scrotal approach. Unfortunately, the scrotal incision became a chronically discharging wound refractory to antibiotic treatment.

INVESTIGATIONS

Fistuloscopy and MRI findings confirmed the presence of a 10 cm long trans-sphincteric anoscrotal fistula (figures 1 and 2). It extended from the right base of the scrotum, along the inferomedial aspect of the corpus spongiosum, and tracking posteriorly to an opening in the midanal canal, with the tract crossing fibres of the internal and external anal sphincter.

He underwent examination under anaesthesia, confirming a complex perianal fistula.

TREATMENT

Fistuloscopy showed that the internal extent of the fistula was to the anal sphincter. Saline infiltration extravasated into the anal canal at this point. Fistuloscopic de-epithelialisation of the tract was performed using diathermy and curettage. A negative pressure drain was placed from the scrotal opening. Mucosal excision around the anal opening was performed; the internal sphincter fibres were closed with 2.0 Vicryl, and the mucosal defect closed with an Ovesco clip.

The patient unfortunately experienced anal discomfort resulting in the removal of the clip; however, the underlying mucosa was healed. After the removal of the negative pressure dressings at 1 week, he continued to have chronic discharge from his scrotal incision site, which resolved by 8 weeks.

OUTCOME AND FOLLOW-UP

The patient is now pain-free and his complex fistula has resolved. Staging scans at 1 year remain free of distal metastases and tumour markers remain negative.

DISCUSSION

Fistula-in-ano is thought to arise primarily from prior abscesses secondary to chronic bacterial infection of the anal intersphincteric glands; the glands of Hermann and Desfosses. Ramanujam et al¹ found that 34.7% of their 1023 patients presenting with perineal abscess were found to have a fistulous tract based on clinical examination and probing. Inflammatory conditions of the bowel have also been implicated in a substantial number of fistulae,

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Figure 1 MRI axial image showing the fistula crossing the midline along the corpus spongiosum.

especially Crohn's disease, albeit less frequently. Other less common causes include previous haemorrhoidectomy, fissurectomy, infected episiotomy, foreign body-related anal perforation, tuberculosis, hydradenitis suppurativa and malignancy.²

Anal abscess usually extend along the path of least resistance, commonly opening into the perianal skin, or within the anorectum. There have been a few case reports demonstrating acquired anovestibular or anovulval fistulae in women.³ However, analogous anoscrotal fistula in men has not been described.

Our patient had symptoms of perineal tenderness suggesting the presence of pre-existing perineal disease; however, he did not have focal palpable collection or demonstrable scrotal involvement on imaging or symptomatically. Only after a delayed period postoperatively did he exhibit clinical scrotal involvement and then chronic suppuration.

We hypothesise our patient suffered an anteriorly located ischiorectal abscess tracking to the scrotum by way of surgical debridement which bridged the gap and crossed multiple fascial tissue planes.

Fistula management is complex and multifaceted. Treatment is primarily aimed at healing of the fistula with preservation of anal continence. Traditionally, low fistula-in-ano can be managed with fistulotomy as the rate of faecal incontinence is low in these cases. Alternative modalities such as cutting setons,

Figure 2 MRI sagittal image showing the anterior course of the fistula extending towards the subdartos.

fibrin glue, mucosal clips, advancement flaps and fistulectomy may carry a lower risk of affecting continence but with lower success.^{2,4-9}

Complex, high fistulas or failed previous fistulotomy/fistulectomy pose greater risk of faecal incontinence. For these patients, options include mucosal advancement flaps, ligation of the internal fistula tract, anal fistula plugs and an increasing number of novel techniques.^{2,4,9,10}

Negative pressure wound therapy is an increasingly common approach to complex wound healing. Evidence for its use in fistula-in-ano however is limited to case reports. Strict protocol, routine shaving of the perianal region and the use of gel plates can aid in its use. It has been shown to alleviate swelling, improve fluid drainage, speed up healing and create clean wounds.¹¹ Its use in our case was particularly appropriate and may have contributed to the success of the surgery. The external opening on the scrotal wall is easily accessible and getting a seal is easier with the opening being further from the anus.

Learning points

- ▶ Anoscrotal fistula is an exceedingly rare complication postoperatively, and unexpected in a procedure involving an inguinal incision.
- ▶ Negative pressure dressings in combination with fistula closure methods can be suitable for fistula management.
- ▶ It is important for surgeons to be aware of the possibility of a complex anofistulous tract when an inguino-scrotal infection persists, even when tissue planes may be theoretically well separated.

Contributors AP is part of the treating team for this patient's urological condition. He was instrumental in study design, acquisition of data, data analysis and interpretation. He drafted the article and revised it critically for important intellectual content. He prepared and approved the final version published. CG is the treating colorectal surgeon, managing the fistula. He was also involving in critically revising the manuscript, and approved the final version. AJK is the treating urologist who initially treated the patient. He conceived and designed the study. He critically revised the manuscript, and approved the final version. All authors are in agreement to be accountable for the article and to ensure that all questions regarding the accuracy or integrity of the article are investigated and resolved.

Competing interests None declared.

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REFERENCES

- 1 Ramanujam P, Prasad M, Abcarian H, *et al*. Perianal abscesses and fistulas: a study of 1023 patients. *Dis Colon Rectum* 1984;27:593-7.
- 2 de Parades V, Zeitoun JD, Atienza P. Cryptoglandular anal fistula. *J Visc Surg* 2010;147:e203-15.
- 3 de la Poza G, López-Sanroman A, Taxonera C, *et al*. Genital fistulas in female Crohn's disease patients: clinical characteristics and response to therapy. *J Crohn's Colitis* 2012;6:276-80.
- 4 Jacob TJ, Perakath B, Keighley MR. Surgical intervention for anorectal fistula. *Cochrane Database Syst Rev* 2010;(5):CD006319.
- 5 Senninger N, Mennigen R, Laukötter M, *et al*. The OTSC Ö proctology clip system for the closure of refractory anal fistulas. *Tech Coloproctol* 2015;19:241-6.
- 6 Probst RL, Joos AK, Ehni W, *et al*. Prospective pilot study of anorectal fistula closure with the OTSC Proctology. *Colorectal Dis* 2015;17:81-6.
- 7 Gautier M, Godeberge P, Ganansia R, *et al*. Easy clip to treat anal fistula tracts: a word of caution. *Int J Colorectal Dis* 2015;30:621-4.

- 8 Dubois A, Carrier G, Pereira B, *et al.* Therapeutic management of complex anal fistulas by installing a nitinol closure clip: study protocol of a multicentric randomised controlled trial—FISCLOSE. *BMJ Open* 2015;5:e009884.
- 9 Visscher AP, Schuur D, Roos R. Long-term follow-up after surgery for simple and complex cryptoglandular fistulas: fecal incontinence and impact on quality of life. *Dis Colon Rectum* 2015;58:533–9.
- 10 Sygut A, Zajdel R, Kedzia-Budziwska R, *et al.* Late results of treatment of anal fistulas. *Colorectal Dis* 2006;9:151–8.
- 11 Banasiewicz T, Hermann J, Krokowicz L, *et al.* 'Sandwich technique' with bridging, a modification of negative pressure wound therapy for anal fistulas. *Tech Coloproctol* 2015;19:173–5.

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