Delayed presentation of life-threatening perineal sepsis following stapled haemorrhoidectomy: a case report

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ABSTRACT

Fournier's gangrene has been described after injection sclerotherapy and banding of haemorrhoids as well as after conventional haemorrhoidectomy. In addition, there have been several cases following stapled haemorrhoidopexy. A patient with this complication nearly always presents within the first week following surgery. We present an illustrative case of a patient who underwent stapled haemorrhoidopexy for prolapsed haemorrhoids and presented with fever, urinary retention and peri-anal pain 39 days later. At re-operation, there was extensive peri-anal necrosis. After wide excision and fashioning of a colostomy, the patient recovered. Our case shows that late presentation can occur.

KEYWORDS

Haemorrhoids – Sepsis – Infection – Postoperative complication – Gangrene

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A number of techniques are currently in use for tackling the problem of haemorrhoids. These range from office procedures, such as injection sclerotherapy and rubber band ligation, to formal haemorrhoidectomy.

Recently, stapled haemorrhoidopexy has been advocated as an alternative technique, with the reported advantages of reduced postoperative pain and an earlier return to work.¹ However, there have been several reports of life-threatening perineal sepsis following this procedure. We describe another case of overwhelming perineal sepsis.

Case report

A normally fit and well 48-year-old woman was admitted for stapled haemorrhoidopexy following a long history of bright red rectal bleeding and associated prolapsing piles. On examination, she had third-degree piles with a large external component, as well as mild perineal descent and reduced resting anal tone, but with good squeeze tone and no functional deficit.

A standard stapled haemorrhoidopexy technique was performed by a consultant colorectal surgeon (JSJ) under the direct supervision of a visiting professor, who is an expert in the technique. No prophylactic antibiotics were administered. Operative findings were of prominent piles with everted anal mucosa and a prominent sphincter. After

dilating the anus, a purse-string was inserted into the rectal mucosa 3 cm from the dentate line. The doughnut from the first firing of the gun was incomplete in one part and adequate lifting of the anal mucosa was not achieved, so a further purse string was inserted just distal to the first staple line. The subsequent firing of the gun achieved adequate doughnuts. These were not examined histologically. The first staple line was excised in the second firing. She was discharged home later that day, having recovered well and being comfortable.

She presented again 5 days later with perineal pain, difficulty of micturition and constipation. Examination revealed a slightly distended but soft abdomen, a palpable bladder and a tender but otherwise normal feeling rectum with an intact staple line. She was admitted for analgesia and catheterisation, and had a residual of 1200 ml. She was treated with enemas and aperients, and allowed home after an 8-day stay.

She continued to have problems at home with passing urine and opening her bowels as well as with perineal pain. She re-presented 38 days' post-procedure when she was found to be unwell with urinary retention, faecal incontinence and pain. Examination revealed extensive perineal sepsis with synergistic gangrene. In addition, she had renal impairment with a urea of 21.1 mmol/l and a creatinine of 317 µmol/l. She was anaemic (haemoglobin 8.7 g/dl), had a

thrombocythaemia (platelets 710×10^9), and had a leukocytosis of 22.7×10^9 (neutrophils 21.4). In addition, her albumin was 23 g/l.

At examination under anaesthesia, the extent of the sepsis included the lower one-third of the rectum and the anal sphincter complex, all of which was debrided back to healthy tissue. The upper rectum was ulcerated but appeared viable. A trephine loop colostomy was performed and the wound packed. She was treated with broad-spectrum antibiotics for a total of 10 days: cefuroxime (Britannia Pharmaceuticals, UK), metronidazole (MacoPharma, UK), and gentamicin (Rousell, UK). The renal impairment responded to fluid resuscitation and returned to normal within 24 h.

Histology of the excised specimen showed extensive necrosis consistent with peri-anal gangrene, with no evidence of Crohn's disease or other specific pathology. Microbiology grew mixed coliforms but no clostridial species. She made steady progress over the following weeks, although the wound did not heal fully until 14 months' post-debridement. Due to the extensive debridement of the sphincters, the colostomy is permanent.

Discussion

Over the years, a number of cases of overwhelming sepsis have occurred as a consequence of the surgical treatment of haemorrhoids, in some cases proving fatal; this is perhaps best described following banding for haemorrhoids. In 1985, Russell *et al.*² described a series of four previously fit patients who developed sepsis, presenting 3–10 days after banding. In all cases, the sepsis ultimately proved fatal, although none of the patients had positive blood cultures. The authors concluded that persistent pain associated with urinary symptoms following this procedure should alert clinicians to the possibility of serious complications.

There have been three other reported cases of perineal sepsis after stapled haemorrhoidopexy. All three presented in the first postoperative days with pain, sepsis, and evidence of perineal necrosis,^{3–5} and one also had a rectovaginal fistula.⁵ All three were aggressively treated with surgical debridement, faecal diversion and antibiotics. At operation, the staple lines in two of these had palpable defects within them.^{3,4} One of the patients died as a result of the sepsis.⁵ The patient reported in our case did not undergo

surgical debridement until 39 days post-haemorrhoidopexy. In retrospect, it is likely that the symptoms that necessitated her early re-admission represented early perineal sepsis. However, her symptoms were insidious and she did not display any of the dramatic signs of sepsis at this stage as in other reported cases. In addition, she had an intact staple line on examination at her earlier admission. It is difficult to speculate whether earlier intervention may have prevented the need for such radical surgery in her case. However, it is clear that her early presenting symptoms, especially her pain and urinary difficulties, are similar to those described as for sepsis following banding procedures.² Therefore, the presence of unexpectedly severe pain, sepsis, and urinary difficulties appear to be useful alarm symptoms for the presence of life-threatening perineal sepsis following treatment for haemorrhoids.

Conclusions

Our case together with others reported in the literature serve to illustrate that, although uncommon, devastating complications do occur after apparently straightforward procedures for dealing with haemorrhoids. Surgeons should therefore retain a high index of suspicion when confronted with a patient returning troubled after such a procedure, even if the presentation is delayed by a number of days or weeks. Broad-spectrum antibiotics should be prescribed promptly should there be clinical suspicion of perineal sepsis, as this is the only treatment that may prevent the development of gangrene.

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