Reminder of important clinical lesson

Long-term steroids and an extensive diverticular abscess

Eleanor Jane H Turner,¹ Syed Arsalan Raza²¹Surgery Department, Epsom General Hospital, Epsom, UK;²Radiology Department, St Georges Hospital, London, UK

Correspondence to Miss Eleanor Jane H Turner, ejhturner@yahoo.com

Summary

The authors report a case of a 70-year-old lady who was on steroids for over 40 years for asthma and presented with a subcutaneous abscess related to diverticular disease of the colon. This case illustrates how steroids can mask the disease process and also highlights that diverticular abscess perforation is one of the many complications of corticosteroid therapy.

BACKGROUND

The natural history of a small diverticular perforation is a localised abscess which can resolve on its own or go onto a more generalised peritonitis. A localised abscess may resolve with conservative treatment (usually antibiotics) or if larger is likely to cause generalised abdominal symptoms and surgery (either laparotomy or laparoscopy) is likely to be required. Here we present a case in which the abscess extended but without causing many symptoms in a patient on long-term steroids.

CASE PRESENTATION

A 70-year-old lady presented with an 8 week history of a lump in the left buttock/back which had been gradually increasing in size. It had started to cause some mild discomfort but no pain. She was on long-term steroids (10 mg of prednisilone daily for over 40 years) for asthma. She was known to suffer from diverticular disease and had a rectovaginal fistula which had been treated conservatively for many years. Other medical history included heart disease, atrial fibrillation and a previous hysterectomy 30 years ago for dysmenorrhea. Apart from the prednisilone she also took digoxin, citalopram, warfarin orally and salbutamol and atrovent inhalers. She was a non-smoker and lived independently.

On examination, she was afebrile, haemodynamically stable and looked well. She was not in obvious pain and was mobile. She had a 12 by 12 cm fluctuant swelling over the left buttock/back which was mildly tender. It had no overlying erythema or other skin changes (figure 1). Abdominal examination was unremarkable apart from a previous hysterectomy scar and rectal examination normal.

INVESTIGATIONS

Apart from an international normalised ratio (INR) consistent with taking warfarin, her blood investigations were normal. She had an ultrasound and CT scan (figure 2) which showed this to be an abscess related to a diverticular abscess in the sigmoid colon tracking through the piriformis upwards and outwards to spread between the gluteal muscles to the left posterior abdominal wall involving the erector spinae muscles.

TREATMENT

The patient was started on cefuroxime and metronidazole, her warfarin was stopped and when her INR was below 1.5 she was taken to theatre for incision and drainage of the abscess. As the radiological images had shown the pus predominantly beneath the fluctuant area, it was felt that open drainage (as opposed to radiological drainage) was the best option, though a decision to leave a drain in place was made due to the connection with the diverticular abscess. Under local anaesthesia an incision was made over the abscess and it was washed out and a drain was left in the cavity and put on free drainage. Antibiotics were stopped and she was discharged with a drain in situ.

OUTCOME AND FOLLOW-UP

The following month a sinogram was performed through the drain which showed the cavity extending to communicate with the sigmoid colon (figure 3). The drain was removed as a controlled fistula had formed with drainage into a stoma bag. This was still draining at 18 months postoperatively. Surgical intervention had been avoided for some time due to patient's choice and comorbidity.

Figure 1 Photograph of the abscess showing a swelling over the left buttock/back but with no overlying erythema or skin changes.

Figure 2 (A–D) Selected axial postintravenous contrast CT images through lower abdomen and pelvis. A large collection containing air-fluid level within the subcutaneous tissue of the left posterior abdominal wall involving the erector spinae muscle (blank arrow in A) proximally and the glutei muscles distally (asterisk in B). The collection tracks along the left piriformis and gemellus muscles into the pelvis to lie adjacent to the sigmoid colon (arrows in C and D). Diverticulae noted within the sigmoid colon.

Figure 3 (A and B) A sinogram performed via a sinus over left lower flank region. Selected lateral and frontal spot views. Irregular subcutaneous cavity demonstrated which extends within the pelvis to communicate with sigmoid colon (arrow in A). A small contrast filled cavity is also noted within the deep pelvis (asterisk in B).

However, it was eventually decided that a resection was necessary as the drain was affecting quality of life. At operation the diseased sigmoid colon was resected and

Hartman's procedure was performed. The patient has made a good recovery from the resection, but there are no plans to reverse the stoma.

DISCUSSION

The use of long-term corticosteroids are likely to have contributed to the lack of symptoms in this patient. The immunosuppressive and anti-inflammatory actions may have helped with the abscess spreading and delayed healing. Furthermore it has previously been shown that use of steroids are strongly associated with diverticular abscesses and their perforation.^{1 2}

Learning points

- ▶ There are many complications of corticosteroid therapy.
- ▶ Perforation of diverticular disease is one of the complications.
- ▶ Corticosteroids can mask perforation.
- ▶ Long-term steroid therapy should be reviewed.

Competing interests None.

Patient consent Obtained.

REFERENCES

1. **Mpofu S**, Mpofu CMA, Hutchinson D, *et al*. Steroids, non-steroidal anti-inflammatory drugs, and sigmoid diverticular abscess perforation in rheumatic conditions. *Ann Rheum Dis* 2004;**63**:588–90.
2. **Arsura EL**. Corticosteroid-associated perforation of colonic diverticula. *Arch Intern Med* 1990;**150**:1337–8.

This pdf has been created automatically from the final edited text and images.

Copyright 2012 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.

BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Turner EJ, Raza SA. Long-term steroids and an extensive diverticular abscess. *BMJ Case Reports* 2012;10.1136/bcr.10.2011.4926, Published XXX

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow

Keep up to date with all published cases by signing up for an alert (all we need is your email address) <http://casereports.bmj.com/cgi/alerts/etoc>