CASE REPORT

Near-fatal small bowel ischaemia secondary to sacrocolpopexy mesh

Paul Vulliamy, Alison May Berner, Muhammad Suleman Farooq, Attavar Srilekha

Queen's Hospital, Romford, UK

Correspondence to

Paul Vulliamy,
paul.vulliamy@gmail.com

SUMMARY

A 74-year-old woman presenting with acute abdominal pain underwent surgery for suspected small bowel ischaemia. At laparotomy, a sacrocolpopexy mesh in the pelvis, which had been inserted 8 years previously, was found to be causing strangulation of a 2-m length of the small bowel. Following resection and primary anastomosis, the patient spent several days in intensive care before her eventual discharge. This unusual life-threatening complication should be considered in patients presenting with abdominal pain even many years following abdominal sacrocolpopexy.

ischaemic heart disease, hypertension and type 2 diabetes mellitus. She had undergone an uncomplicated abdominal sacrocolpopexy using a polypropylene mesh 8 years previously, following a vaginal hysterectomy for uterine prolapse. On admission, the patient was tachycardic and hypotensive, with a base deficit of 7.6 mmol/l and a lactate of 3.7 mg/dl. ECG showed sinus tachycardia. Examination revealed diffuse abdominal tenderness with no guarding or rigidity, and reduced bowel sounds.

In the first 2 h following admission, the patient deteriorated, with worsening pain and progressive hypotension. A repeat arterial blood gas showed a base deficit of 12.4 mmol/l and a lactate of 18 mg/dl.

BACKGROUND

Although gastrointestinal complications following sacrocolpopexy are well recognised, life-threatening bowel ischaemia as a result of intraperitoneal mesh placement has not been previously described. Awareness of this complication, which in this case developed several years postoperatively, supports retroperitoneal sacrocolpopexy mesh placement and should be considered in patients presenting with acute abdominal pain following the procedure.

INVESTIGATIONS

An abdominopelvic CT scan in the emergency department demonstrated free intraperitoneal fluid and small bowel thickening consistent with possible ischaemia (figure 1). Although not reported initially, subsequent inspection of the CT scan identified the close proximity of the sacrocolpopexy mesh to the affected loops of the small bowel.

TREATMENT

An emergency laparotomy was performed, revealing haemorrhagic fluid in the peritoneal cavity and a substantial length of the necrotic small bowel. On further examination, a portion of the small bowel

To cite: Vulliamy P, Berner AM, Farooq MS, et al. *BMJ Case Reports* Published online: [please include Day Month Year] doi:10.1136/bcr-2012-008179

CASE PRESENTATION

A 74-year-old woman presented to the hospital with an 8 h history of sudden-onset central abdominal pain and vomiting. Her medical history included

Figure 1 Sagittal CT showing sacrocolpopexy mesh (highlighted in red) and multiple fluid-filled small bowel loops with wall thickening, consistent with ischaemia (yellow arrows).

mesentery was found to be tethered beneath the mesh anchoring the vaginal vault to the sacrum. The mesh was divided, and 2 m of the necrotic bowel were resected. The residual mesh was excised and a primary small bowel anastomosis was performed.

OUTCOME AND FOLLOW-UP

Post-operatively, the patient was transferred to the intensive care unit and made a slow but uncomplicated recovery. She was discharged home on the 13th postoperative day, and has remained well since discharge.

DISCUSSION

Sacrocolpopexy is an efficacious and widely used technique for the management of symptomatic vaginal vault prolapse.¹ Although the overall complication rate for the procedure is low, a range of gastrointestinal complications following the procedure have been previously described, including small bowel obstruction requiring laparotomy in the early postoperative period.² However, to our knowledge, this is the first report of delayed small bowel ischaemia as a direct result of synthetic mesh insertion at sacrocolpopexy. Closure of the peritoneum over the mesh to achieve 'retroperitonealisation', which has previously been advocated as a means of avoiding contact between the small bowel and the prosthesis,³ may have prevented this life-threatening complication. In this case, prompt recognition and early surgical intervention for small bowel ischaemia led to a favourable outcome.

Learning points

- ▶ Life-threatening small bowel ischaemia can occur as a result of sacrocolpopexy mesh insertion, even several years after the procedure.
- ▶ Early recognition of an ischaemic bowel is essential, and a high index of suspicion is required, as signs of peritonism are often absent.
- ▶ Prompt operative intervention in patients with ischaemic bowel can result in a favourable outcome, even in an unstable patient with a profound lactic acidosis.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Commissioned; internally peer reviewed.

REFERENCES

- 1 Nygaard IE, McCreery R, Brubaker L, *et al.* Abdominal sacrocolpopexy: a comprehensive review. *Obstet Gynecol* 2004;104:805–23.
- 2 Whitehead WE, Bradley CS, Brown MB, *et al.* Gastrointestinal complications following abdominal sacrocolpopexy for advanced pelvic organ prolapse. *Am J Obstet Gynecol* 2007;197:78. e1–7.
- 3 Addison WA, Livengood CH 3rd, Sutton GP, *et al.* Abdominal sacral colpopexy with Mersilene mesh in the retroperitoneal position in the management of posthysterectomy vaginal vault prolapse and enterocele. *Am J Obstet Gynecol* 1985;153:140–6.

Copyright 2013 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.

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