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Post-menopausal endometriosis showing vascular invasion

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Abstract We describe a case of aggressive endometriosis invading the vascular space in a post-menopausal woman. The disease required ultra radical surgery in order to remove it and may explain a mechanism for distal endometriotic metastases.

Keywords Endometriosis · Polypoid · Vascular space invasion

Introduction

Endometriosis is a relatively uncommon disease in post-menopausal women. The pathogenesis of the disease is unclear, particularly with regard to how distal deposits of the disease may occur. Here we report on a case which exhibits some unusual histological features that suggest a possible method by which endometriosis can metastasise distally.

Case report

A 43-year-old woman with insulin dependent diabetes mellitus presented to the urology clinic with recurrent urinary tract infections, painless macroscopic haematuria and rectal bleeding.

Some 20 years earlier she had undergone a left salpingo-oophorectomy for pelvic pain due to histologically proven endometriosis. The remainder of the pelvis was documented to be normal at the time of operation. Five years later she underwent an abdominal hysterectomy, right salpingo-oophorectomy and appendicectomy for menorrhagia and pelvic pain. Histology showed no endometriosis.

She received post-operative hormone replacement in the form of oestradiol implants.

Following the above referral to the urology clinic, cystoscopy revealed a 1 cm solid bladder tumour with superficial ulceration attached to a palpable mass at the vaginal vault. Biopsy of this tumour showed endometriosis. Flexible sigmoidoscopy demonstrated a large polypoid lesion spread over 5 cm of the distal sigmoid colon. At subsequent laparotomy there was a solid 8-cm mass invading the posterior third of the bladder, the anterior wall of the recto-sigmoid and the upper third of the vagina.

A high anterior rectal resection with primary end-to-end anastomosis using a Premium CEEA 28 (Tyco) was performed along with removal of the upper third of the vagina and half of the bladder running to the margin of the left ureteric orifice. Double J ureteric stents were inserted postoperatively.

Histology of the resected specimen demonstrated aggressive polypoid endometriosis in the colonic and bladder mucosae with vascular space invasion, which was thought not to be adenocarcinomatous (Fig. 1).

The patient made a good initial recovery but presented 21 days after operation with urinary leakage despite an indwelling catheter. An intravenous pyelogram showed delayed emptying of the left kidney post-micturition, tapering of the pelvic ureter and blurring of the left urethrovesical junction (Fig. 2).

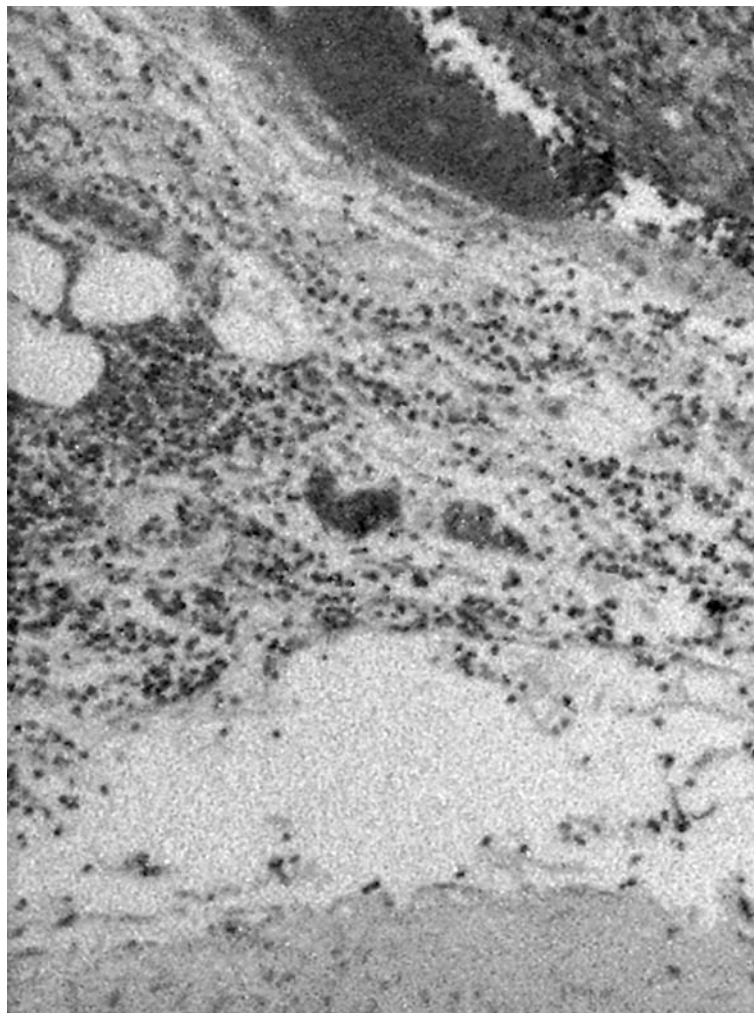
Following insertion of a percutaneous nephrostomy tube, examination under anaesthetic and an on-table nephrostogram confirmed a left ureterovaginal fistula (Fig. 3) with extrusion of contrast into the vagina. The fistula healed with conservative management and

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Fig. 1 Section of bladder wall showing vascular invasion by endometriosis



drainage of the left kidney via the nephrostomy tube. At a further laparotomy a “frozen pelvis” could not be assessed, so that a left to right ureteroureterostomy was performed. A moderate degree of left renal pelvicalyceal dilatation has gradually resolved over the past year with conservative management.

Discussion

The histological features of endometriotic lesions are known to be varied, but are characterised by the presence of endometriotic glands and glands and stroma within the specimen. In this case report two unusual features were seen: polypoid endometriosis of the bowel and evidence of vascular invasion. Polypoid endometriosis is a rare form of the disease with histological features simulating those of an endometrial polyp [1]. The commonest site is in the colon, where it may cause diagnostic confusion, particularly when presenting with rectal bleeding. Anaf et al [2] have recently suggested that endometriotic lesions may infiltrate the large bowel along the nerves of the colon,

as the most richly innervated layers of bowel are those most intensely involved by endometriosis. However, in this case, there was histological evidence of endometriosis invading the vascular space (Fig. 1). This has been reported before, especially in association with endometriosis of the bladder or ovary, though in the latter this was attributed to artefact due to surgical trauma [3]. Histological evidence of vascular space invasion does not necessarily equate with malignancy, but where vascular invasion does occur, the disease may be especially aggressive.

Conclusions

This case demonstrates that endometriosis can occur de novo following pelvic clearance for benign disease. It may also be of a very aggressive nature, particularly when of the polypoid type, requiring excision of parts of the bowel or bladder. The apposition of suture lines in the vagina, bowel and bladder increases the risk of fistula formation. Vascular invasion reveals a distinct



Fig. 2 Section of bladder wall showing vascular invasion by endometriosis



Fig. 3 On-table nephrostogram showing left ureterovaginal fistula

mechanism by which severe endometriosis may undergo distal metastasis.

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