

Objective

Endometriosis, the ectopic growth of endometrium, often involves pelvic organs including the colon. However, caecal localisation is uncommon (*Image 1*). Moreover, colonic rupture secondary to infiltrative endometriosis is very rare, particularly in non-gravid women.^{1,2}

We report the case of a 46-year-old female with a first presentation of endometriosis as an infiltrative pelvic mass, causing perforation of the caecum and transverse colon.

Case Report

Our 46-year-old nulliparous patient presented with a three-week history of worsening intermittent abdominal pain, associated with three days of diarrhoea and vomiting. She had no significant gynaecological history, and was established on a progestogen-only pill. Her past medical history included a single episode of idiopathic uveitis and queried irritable bowel syndrome.

On admission, she was tachycardic with a heart rate of 127 beats per minute, but was haemodynamically stable and apyrexial. All other observations were within normal range. Abdominal examination found her to be diffusely tender on superficial palpation with voluntary guarding centrally, and in the right upper and lower quadrants.

Blood results showed raised inflammatory markers (*Table 1*).

Computed tomography (CT) scanning revealed extensive intra-abdominal inflammation and proximal colonic perforation (*Image 2*).

An emergency laparotomy was performed. A perforating caecal mass, which fistulated into the lateral wall of the transverse colon, was visualised. This necessitated surgical excision with a right hemi-colectomy. Inflammatory bowel disease or colonic malignancy were the working differential diagnoses. However, the final histopathology report described ulcerated caecal mucosa, fibrosis, and glands outwith the muscularis propria surrounded by stroma - features suggesting infiltrating endometriosis.

Investigations and Imaging

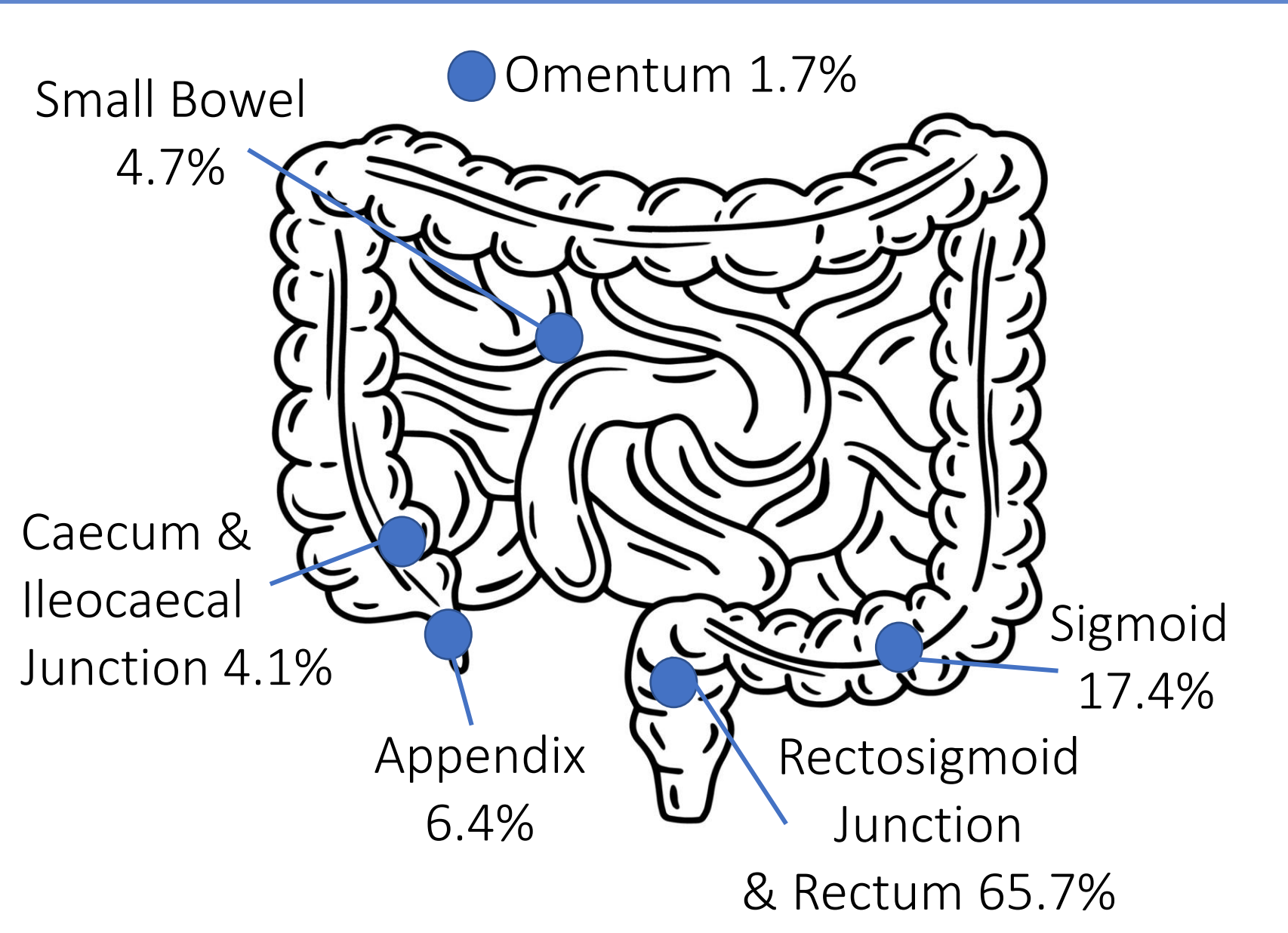


Image 1: The anatomical distribution of infiltrative endometriosis affecting the gastrointestinal tract. Most commonly, deposits are found at the rectosigmoid junction and rectum. It is infrequently found at the caecum or adhered to omentum.²



Image 2: CT Abdomen and Pelvis with contrast (scanning taken upon presentation). There is perforation, and in the right iliac fossa there is extraluminal air within the severe interloop inflammatory changes.

Blood Results		
Full Blood Count	Haemoglobin: 11.7g/dL Platelets: 509 × 10 ⁹ /L	White Cell Count: 14.6× 10 ⁹ /L Neutrophils: 13.6× 10 ⁹ /L
Clotting Screen	Prothrombin Time: 18.4s	Activated Partial Thrombin Time: 27.4s
Urea and Electrolytes Liver Function Tests Amylase	All within normal range	
C-Reactive Protein	372 mg/L	
Cultures		
Blood cultures (<i>on admission</i>) Intra-abdominal fluid (<i>theatre</i>) Intra-abdominal swab (<i>theatre</i>)	Negative – no growth	

Table 1: Blood results microbiology culture results from samples taken on admission and in theatre.

Discussion

A protracted timespan from first presentation to eventual diagnosis is often experienced by women with endometriosis. This may be due to the heterogeneous patient cohort and variation in symptoms, allowing endometriosis to mimic other disease processes.

In retrospect, our patient reported multiple healthcare assessments for non-specific abdominal pain. Whilst the eventual outcome of colonic perforation could not have been anticipated, it should be appreciated that earlier diagnosis and intervention may have prevented such consequential morbidity. In our case, the differential was not reached until histology was available - further reiterating how elusive endometriosis can be in any healthcare setting.

This case represents not only a highly unusual first presentation of endometriosis, but is a reminder of its potentially devastating and diverse manifestations.

Conclusion

Caecal perforation, and indeed colonic perforation in a non-gravid woman, is a highly unusual consequence of endometriosis. It is especially rare as a first presentation of the disease. This case highlights the importance of early symptom recognition in reducing morbidity and mortality associated with this elusive diagnosis.

Endometriosis should be considered as a differential, in both chronic and acute abdominal or pelvic pain, in post-menarche females.

References

1. Wolthuis A. Bowel endometriosis: Colorectal surgeon's perspective in a multidisciplinary surgical team. World Journal of Gastroenterology. 2014;20(42):15616.
2. Chapron C, Chopin N, Borghese B, Foulot H, Dousset B, Vacher-Lavenu M et al. Deeply infiltrating endometriosis: pathogenetic implications of the anatomical distribution. Human Reproduction. 2006;21(7):1839-1845.