

# Irritable bowel syndrome or endometriosis, or both?

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**Both irritable bowel syndrome and endometriosis are common conditions, although symptomatic gastrointestinal endometriosis is extremely rare. We report the case of a patient initially thought to have irritable bowel syndrome, in whom the diagnosis of endometriosis only became clear following a laparotomy for small bowel obstruction. This case highlights the need to question the diagnosis in patients with irritable bowel syndrome when there is any uncertainty, and also to appreciate that other pathology can arise, even when the diagnosis is secure.**  
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## Introduction

The management of irritable bowel syndrome (IBS) is a particularly challenging problem facing gastroenterologists, in part due to the extensive differential diagnosis, but also because of the propensity for co-existent pathology to develop while the condition runs its notoriously chronic course. It is one of the most frequently encountered illnesses in the out patient setting, and affects approximately 20% of the female population, in whom the possibility of gynaecological pathology also needs to be considered. With recent guidelines advising that investigations should be kept to a minimum [1], there will inevitably be occasions when there is uncertainty surrounding the diagnosis in this group of patients.

## Case report

A 29-year-old previously healthy nulliparous female, with no history of previous abdominal surgery, first presented to another hospital with abdominal pain and mild constipation. Following a normal colonoscopy she was diagnosed as suffering from IBS and was discharged. Six years later she was admitted to our emergency department with an exacerbation of her pain and vomiting, beginning shortly after the onset of her menstrual period. She was managed conservatively and quickly improved. Following a gynaecological consultation it was felt that her symptoms were indeed more consistent with the IBS than with gynaecological disease, and she was referred to our department. At this time she was complaining of lower abdominal pain and bloating, which was associated with a mildly irregular bowel habit, tending toward constipation and fulfilled Rome II criteria for a diagnosis of IBS. In addition there was low back pain and lethargy, but no nausea, urinary or other symptoms. Her periods were regular,

although she felt that her symptoms, especially the pain, tended to worsen during menstruation. She was offered treatment with spasmolytics, although these had only a minor effect. A trans-abdominal ultrasound scan of the abdomen and pelvis was performed and was normal. After 18 months, she was continuing to suffer intermittent abdominal symptoms and, while attending for review in the gastroenterology clinic, she was noted to have lost weight and appeared unwell; consequently, elective admission was arranged for further investigation. Shortly afterwards, however, her pain became more acute, precipitating emergency admission. Her symptoms now consisted of colicky central abdominal pain, associated with vomiting and constipation. Examination revealed a distended abdomen, without features of peritonitis, and the rectum contained small amounts of pellety stool. The sedimentation rate and C-reactive protein were normal, but an abdominal X-ray showed dilated loops of small bowel and was suggestive of intestinal obstruction (see Fig. 1). A laparotomy was carried out and an obstructing, but benign appearing stricture was found in the terminal ileum; thickening of the appendix was also apparent. A resection was performed and histology subsequently confirmed endometriosis affecting these anatomical areas (see Fig. 2). The post-operative course was uncomplicated, and her symptoms are now very much improved; however, she continues to suffer intermittent abdominal discomfort associated with constipation and still meets Rome II criteria for IBS. The patient has given written consent to the publication of her case.

## Discussion

Endometriosis is an important cause of lower abdominal pain in women of reproductive age. The exact prevalence is unknown, but the condition is discovered

Fig. 1

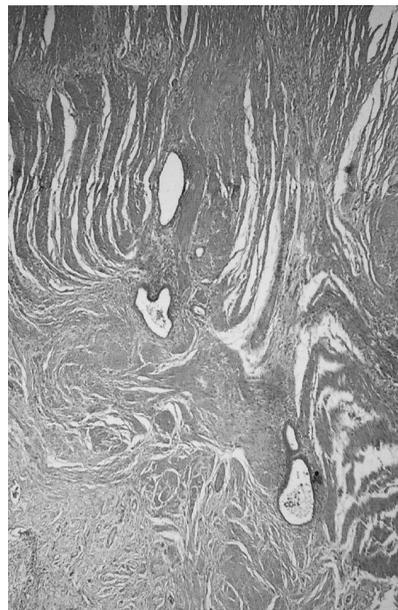


Plain abdominal X-ray showing features of small bowel obstruction.

during routine laparoscopic sterilization in 1–5% of healthy women [2], and the prevalence in women presenting with pelvic symptoms is likely to be much higher. The gastrointestinal tract may be affected in up to one-third of these [3], and most frequently involves the recto-sigmoid area (72%), the recto-vaginal septum (13%), the small bowel (7%), the caecum (4%), and the appendix (3%) [4]. However, the involvement is usually superficial and seldom leads to gastrointestinal symptomatology. When it does cause problems the classic presentation is that of rectal bleeding at the time of menstruation; however, it can also present with intussusception, haemorrhage, perforation, or small bowel obstruction, with the latter usually only being diagnosed at laparotomy [5]. In our patient the normal sedimentation rate and C-reactive protein made inflammatory bowel disease unlikely to be the cause of her obstruction, and it was feared that some form of malignant process might be found, especially as there was no reason for her to have adhesions.

Usually the presence of bowel symptoms in a patient with abdominal pain is a guide to the diagnosis being gastrointestinal rather than gynaecological (Lea R.,

Fig. 2



Photomicrograph (haematoxylin and eosin stain, low power view) showing endometrial glands within the muscularis propria of the terminal ileum.

Bancroft K., Whorwell P.J.; in preparation). However, there is a wide variation in what is accepted as a normal bowel habit, depending, for example, on dietary intake, and in females stools tend to become looser and more frequent in the perimenstrual period [6]. Attempts to make a positive diagnosis of IBS have led to the formulation of diagnostic criteria for the condition, based on gastrointestinal symptomatology; the most widely accepted of these are the Rome criteria and Manning's criteria [7,8]. Their discriminant value is dependent upon the relative prevalence of both IBS and organic disease in the sample population, which is in turn influenced principally by age; indeed, the risk of finding organic disease is doubled in those presenting aged older than 40 years compared with individuals younger than this age [9]. In general, however, a representative sensitivity and specificity for the Manning criteria would be approximately 40 and 80%, respectively [10], and furthermore the more of these criteria that are met, the more probable a diagnosis of IBS becomes [11]. The presence of 'non-colonic' symptoms of IBS can provide additional support to the diagnosis based on the aforementioned criteria [12]; these may be either gastrointestinal in nature, for example upper abdominal symptoms including early satiety and nausea, or more general symptoms such as lethargy and backache, the latter having good discriminant value when examined using multiple logistic regression techniques [9]. Conversely, alarm features, which include anorexia and weight loss, sleep distur-

bance due to symptoms, rectal bleeding and abnormal investigations, favour the presence of organic disease [13], as was the case with our patient.

A positive history of gynaecological symptoms is often taken as an indication of gynaecological pathology. We have recently evaluated this assumption in a cohort of patients with IBS compared with a group suffering from either pelvic inflammatory disease or endometriosis [6]. Our results showed that IBS patients suffered significantly more upper abdominal pain, nausea, bloating and disturbance of bowel habit, and it is of interest to note that our patient did not have nausea until she became obstructed. However, the only gynaecological features that were more prevalent in the gynaecological patients were forniceal tenderness, intermenstrual bleeding and premenstrual exacerbation of pain, the latter of which was noticed by our patient. Dyspareunia, vaginal discharge and irregular periods were, perhaps surprisingly, no more common in the gynaecological patients compared with those with IBS. Unfortunately, an exacerbation of gastrointestinal symptoms at the time of menstruation, while being a classic feature of endometriosis, is also frequently described in uncomplicated IBS [6,4], although this often relates more to the bowel habit than the abdominal pain.

How far to investigate patients presenting with symptoms reminiscent of IBS in order to exclude gynaecological pathology is obviously a matter of clinical judgement. Ultrasound scanning of the pelvis is commonly performed for this reason, as in our case; however, a study of 125 consecutive IBS patients examined by ultrasound suggested that this approach was not helpful and indeed may have been counter-productive by demonstrating minor, unrelated abnormalities [15]. The only definitive test for diagnosing endometriosis is laparoscopy, which is clearly not appropriate in the majority of patients with IBS.

In conclusion this report highlights the importance of the clinician remaining vigilant while managing a patient diagnosed with IBS, and may support the practice of specialist follow-up, especially in those cases where the diagnosis is less certain. In the absence of features suggesting organic disease, a diagnosis of IBS may be made when the diagnostic symptom criteria are met, and this may be further substantiated by the presence of non-colonic features, particularly when they are multiple [12]. Symptoms that may indicate possible gynaecological pathology include intermenstrual bleeding, a perimenstrual exacerbation of pain and forniceal tenderness elicited during per vaginal examination. Whether the diagnosis in this case was in fact gastrointestinal endometriosis when the patient first presented is open to speculation. However, it is interesting

to note that her symptoms, while substantially improved, did not completely resolve following surgery, suggesting that IBS was indeed accounting for at least a proportion of the patient's initial complaints.

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## Conflict of interest

None declared.

## Authors' contributions

Both authors contributed equally to the writing of this paper and both treated the patient. Dr Whorwell is the clinician in charge of this case.

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