

Irritable bowel syndrome, chronic pelvic inflammatory disease and endometriosis: a comparison of symptomatology

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Background and objectives Both irritable bowel syndrome and some gynaecological diseases can give rise to lower abdominal pain, which may result in diagnostic confusion. Disorders such as endometriosis and chronic pelvic inflammatory disease can be diagnosed definitively only by laparoscopy, which is seldom undertaken in the gastroenterological setting. It was the aim of this study to compare the symptomatology of irritable bowel syndrome with that of laparoscopically confirmed chronic pelvic inflammatory disease and endometriosis.

Patients and methods A symptom questionnaire was administered to 50 women with irritable bowel syndrome and 51 gynaecological patients (30 patients with endometriosis, 21 patients with chronic pelvic inflammatory disease). As the symptoms of the two gynaecological conditions were so similar, the groups were combined for the purposes of comparison with irritable bowel syndrome.

Results Patients with irritable bowel syndrome suffered significantly more upper abdominal pain, colicky pain and exacerbation of pain by food or stress. They also experienced more disturbance of bowel habit, distension and nausea. In contrast, the only gynaecological features

that were more common in the gynaecological patients were intermenstrual bleeding, premenstrual exacerbation of pain and forniceal tenderness.

Conclusion The presence of gastrointestinal symptomatology, especially bowel dysfunction, in a woman with lower abdominal pain is suggestive of irritable bowel syndrome. However, the history may not be so helpful in detecting gynaecological disease. *Eur J Gastroenterol Hepatol* 16:1269–1272 © 2004 Lippincott Williams & Wilkins

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Introduction

It is now well recognised that patients with irritable bowel syndrome (IBS) often present to gynaecological clinics [1], and cognisance of this fact can undoubtedly save unnecessary investigation, treatment and even surgery. Less attention has been given to the possibility that gynaecological conditions may present to the gastroenterologist, with a detrimental effect on outcome if they are overlooked.

It is currently recommended that IBS should be diagnosed positively, avoiding, where possible, unnecessary investigations [2]. When an investigation is undertaken, it is usually confined to the gastrointestinal system. However, like IBS, chronic pelvic inflammatory disease (PID) and endometriosis can present with lower abdominal pain and, thus, there is the potential for these two gynaecological disorders to be neglected in the gastroenterological setting.

It was the purpose of this study to compare the

symptoms of patients with IBS with those of subjects with laparoscopically confirmed chronic PID or endometriosis.

Patients and methods

All women studied had presented with lower abdominal pain. The study groups consisted of 65 female patients with IBS, 41 patients with laparoscopically proven endometriosis and 29 patients with laparoscopically proven chronic PID. Patients were recruited consecutively until sufficient numbers had been reached in each diagnostic category after all exclusions had been made. IBS was diagnosed on the basis of the Rome I criteria [3], with appropriate gastrointestinal investigation where necessary. It was not felt ethically justifiable to undertake laparoscopy in the IBS patients, but all IBS patients had a pelvic ultrasound scan performed and were examined by an experienced gynaecologist (KB). Those patients thought to have possible gynaecological pathology were excluded (three patients). In addition, all IBS patients had serological testing for

chlamydial antibodies, and those found to be positive were also excluded (12 patients). In the gynaecological group, only those women with an unequivocal diagnosis at laparoscopy were recruited to the study. As a further safeguard, only those patients whose laparoscopic findings were classed as moderate or severe were included. Gynaecological patients were excluded if they had symptoms suggestive of coexistent IBS (20 patients). A questionnaire was administered to all patients documenting symptoms; their characteristics are detailed in Tables 1 and 2. All women gave informed consent, and the study was approved by the local ethics committee.

Results

The study groups were similar in terms of age (mean with 95% confidence intervals): IBS, 31 (29–33) years; gynaecological disorders, 29 (27–30) years. There were no significant differences in the types of symptoms associated with the two gynaecological disorders; therefore, for the purposes of comparison with IBS, they were grouped together. The prevalence and relative risk ratios for symptoms found to be significantly different in IBS and the gynaecological disorders are shown in Table 1. As can be seen, compared with patients with gynaecological pathology, women with IBS suffered more coexistent upper abdominal pain and pain of a colicky nature. IBS patients also suffered more nausea, exacerbation of pain by food or stress, and a relationship between pain and changes in bowel function. All abnormalities of bowel habit were much more common in women with IBS (Table 1), with the exception of watery stools and the passage of blood per

rectum (Table 2). The prevalences of symptoms generally thought to be more indicative of gynaecological pathology were similar in the two groups (Table 2), with the exception of intermenstrual bleeding, premenstrual exacerbation of symptoms and tenderness on vaginal examination, which were significantly more common in gynaecological patients (Table 1). A sensation of incomplete bladder emptying was found more often in patients with IBS (Table 1).

Discussion

The results of this study indicate that, in patients presenting with lower abdominal pain, the presence of gastrointestinal symptoms suggests a gastrointestinal disorder, probably IBS, rather than gynaecological disease. This should provide some reassurance to gastroenterologists in the outpatient setting that they are, therefore, unlikely to be missing large numbers of patients with gynaecological pathology as the sole cause of their complaint. It should also assist gynaecologists who are considering a gastrointestinal diagnosis for patients in their clinics.

However, it has to be recognised that IBS affects 15% of the population [4] and is, therefore, simply by chance, going to affect at least the same proportion of patients with definitive gynaecological pathology. In fact, in this study, 30% of the patients with gynaecological pathology also had some symptoms suggestive of IBS. This may appear initially to be rather excessive, but it is entirely consistent with the prevalence of IBS seen in other outpatient departments, such as ear, nose

Table 1 Symptoms found to be significantly different between irritable bowel syndrome (IBS) and gynaecology groups

Symptom	IBS (%)	Gynaecology (%)	P value	Relative risk (IBS v. gynaecology)	95% CI
Pain					
Upper abdomen	18	2	<0.001	9.0	1.2–68.7*
Colicky	34	2	<0.001	15.7	2.2–114*
Relief by defecation	34	6	<0.005	5.2	1.6–16.9
Altered stool consistency with pain	38	8	<0.001	4.5	1.6–12.3
Increased by food	42	4	<0.001	9.5	2.3–38.8
Increased by stress	60	24	<0.001	2.5	1.4–4.4
Premenstrual increase	20	39	<0.01	0.50	0.24–0.92
Distension (>1/week)	70	22	<0.001	3.3	1.8–5.8
Bowel habit					
Frequent defecation	56	8	<0.001	6.5	2.4–17.1
Infrequent defecation	76	8	<0.001	8.7	3.4–22.5
Pasty stools	62	4	<0.001	14.0	3.5–55.6*
Pellety stools	66	6	<0.001	9.7	3.2–29.4
Incomplete evacuation	74	6	<0.001	12.6	4.2–38.2
Nausea	78	25	<0.001	3.0	1.8–5.0
Genitourinary symptoms					
Intermenstrual bleeding	6	20	<0.05	0.24	0.07–0.94
Urinary urgency	30	4	<0.025	6.7	1.6–28.3
Incomplete bladder emptying	20	2	<0.025	9.0	1.2–68.7*
Tenderness on VE	8	27	<0.025	0.23	0.08–0.86

CI, confidence interval; VE, vaginal examination.

*Confidence intervals wide because of small numbers positive for symptoms in the gynaecological group. All are significant.

Table 2 Symptoms not significantly different between irritable bowel syndrome (IBS) and gynaecology groups

Symptom	IBS (%)	Gynaecology (%)	P value	Relative risk (IBS v. gynaecology)	95% CI
Pain					
Frequency	72	61	NS	1.2	0.86–1.6
Rated as severe	44	45	NS	0.96	0.60–1.5
Worsened by standing	18	20	NS	0.87	0.34–2.1
Low backache	65	55	NS	1.2	0.86–1.7
Bowel habit					
Watery stool	10	4	NS	2.6	0.52–12.5
Passage of blood per rectum	14	6	NS	2.2	0.60–8.4
Genitourinary symptoms					
Dyspareunia	50	53	NS	0.90	0.60–1.6
Irregular periods	14	24	NS	0.58	0.31–2.4
Vaginal discharge	36	39	NS	0.94	0.54–1.6
Urinary frequency	40	33	NS	1.2	0.68–2.1

CI, confidence interval; NS, not significant.

and throat (ENT) and dermatology clinics [5]. It is likely that IBS is overrepresented in the outpatient population of other specialities because of the tendency of these patients to consult more frequently [6]. Thus, some patients presenting with IBS may have gynaecological pathology by virtue of the problem coexisting with IBS by chance alone, rather than causing any specific symptoms. Indeed, if gynaecological pathology did cause symptoms reminiscent of IBS, then it would be expected that the prevalence of 'irritable bowel syndrome' in this group would be far in excess of the 30% observed.

This study specifically eliminated patients with gynaecological pathology who also had symptoms suggestive of IBS. It could be argued that some of the symptoms produced by their disease could be identical to those of IBS and that they should not have been excluded. However, it was one of the purposes of this investigation to ascertain whether there were any symptoms additional to those of IBS that might be useful in helping physicians to avoid missing coexistent symptomatic gynaecological pathology. Unfortunately, in this study, chronic PID and endometriosis did not cause much in the way of additional symptomatology to alert the clinician to the possibility of their presence. However, in a patient with presumed IBS who is not responding to standard therapy, the presence of intermenstrual bleeding or premenstrual exacerbation of pain might be viewed as warning symptoms. Nevertheless, worsening of pain around the time of menstruation is also common in IBS patients and was present in 20% of our sample and, therefore, a gynaecologist should not necessarily discount a diagnosis of IBS based on the presence of this symptom alone. The presence of bowel symptoms should alert a gynaecologist to consider IBS; similarly, a gynaecological assessment would seem necessary in a patient presenting to a gastroenterologist

with pain in the absence of bowel symptoms. Whether a gastroenterologist should be undertaking a vaginal examination in order to detect forniceal tenderness is another issue.

It is important for specialists from both disciplines to be aware of features favouring IBS, chronic PID and endometriosis and to remember that these conditions frequently overlap. Although it has not been traditional for gastroenterologists and gynaecologists to work together particularly closely, it would appear that much could be gained from such collaborations, including earlier initiation of optimum treatment, better management strategies for patients in whom the diagnosis is uncertain, and an appreciation that comorbidity may affect outcome [7]. Additionally, this approach may lead to a better understanding of the functional disorders that undoubtedly affect both these systems on a frequent basis.

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Conflict of interest

None declared.

Authors' contributions

Dr Bancroft provided clinical gynaecology assessment. Dr Whorwell and Dr Lea wrote the paper. The idea was from Dr Whorwell.

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