Nongastrointestinal symptoms of irritable bowel syndrome: An office-based clinical survey

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Les symptômes non gastro-intestinaux du syndrome du côlon irritable : Une enquête clinique en cabinet

Irritable bowel syndrome (IBS) is the most prevalent problem faced by gastroenterologists in clinical practice (1). The Rome criteria, which were developed in 1989 (2) and revised in 1999 (3), are helpful at arriving at a diagnosis; however, they do not address nongastrointestinal symptoms despite the fact that practitioners and many investigators recognize their presence in IBS patients (4-8). The present study compares the frequency with which such symptoms are reported by IBS patients with the frequency of symptoms reported by those with an organic gastrointestinal disorder, specifically, Crohn's disease.

PATIENTS AND METHODS

Two hundred consecutive patients with IBS (based on the Rome criteria) and 200 patients with documented Crohn's disease were included in the present study. All patients were from the author's outpatient practice and no hospitalized patients were included. Only residents of Alberta younger than 50 years of age were included in the study.

All patients were asked about a wide variety of symptoms, using a simple questionnaire developed by the author, on the first visit to the office. The presence of nongastrointestinal symptoms was noted and further enquiry was undertaken when appropriate. The symptoms considered in the present report are listed in Table 1.

The presence of nongastrointestinal symptoms in IBS and IBD groups are listed in Table 2 and illustrated in Figure 1. IBS patients were more likely to complain of headache, urinary dysfunction, chronic fatigue syndrome (CFS), fibromyalgia or mood disturbance. CFS was severe enough in 20 patients to result in major impairment of their quality of life; however, symptoms that could be readily ascribed to organic disease (eg, weight loss and night sweats) were more frequently reported by patients with Crohn's disease.

RESULTS

Most of the participants in either group were female: 129 of 200 patients in the IBS group and 133 of 200 in the inflammatory bowel disease (IBD) group.

The presence of nongastrointestinal symptoms in IBS and IBD groups are listed in Table 2 and illustrated in Figure 1. IBS patients were more likely to complain of headache, urinary dysfunction, chronic fatigue syndrome (CFS), fibromyalgia or mood disturbance. CFS was severe enough in 20 patients to result in major impairment of their quality of life; however, symptoms that could be readily ascribed to organic disease (eg, weight loss and night sweats) were more frequently reported by patients with Crohn's disease.

Subjects in both groups frequently reported sleep disturbance, but IBD patients, unlike those with IBS, usually stated that it was due to gastrointestinal symptoms, especially diarrhea and abdominal pain. Slightly more patients with IBS than IBD described menstrual difficulties, but the difference did not appear to be significant.

Fibromyalgia and CFS were generally diagnosed before the gastrointestinal consultation, and usually had been seen by other consultants. Anxiety and depression were severe enough to warrant specific psychotropic therapy. The significance of other symptoms, such as headache and sleep disturbance, was
TABLE 1
Nongastrointestinal symptoms and syndromes

<table>
<thead>
<tr>
<th>Symptom or syndrome</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>Requiring standard analgesic therapy</td>
</tr>
<tr>
<td>Sleep disturbance</td>
<td>Either difficulty falling asleep or early awakening at least 5 nights/week</td>
</tr>
<tr>
<td>Disturbance in menstrual function</td>
<td>Excessive bleeding, irregular or painful periods, or other menstrual symptoms</td>
</tr>
<tr>
<td>Disturbance in urinary function</td>
<td>Urinary urgency, frequency or pain, or difficulty passing urine</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>Presenting as musculoskeletal pain and satisfying accepted criteria</td>
</tr>
<tr>
<td>Chronic fatigue syndrome</td>
<td>As diagnosed by other consultants, using accepted criteria</td>
</tr>
<tr>
<td>Mood disturbance</td>
<td>Depression and/or anxiety severe enough to warrant treatment</td>
</tr>
<tr>
<td>Weight loss</td>
<td></td>
</tr>
<tr>
<td>Night sweats</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 2
Prevalence of nongastrointestinal symptoms and syndromes

<table>
<thead>
<tr>
<th>Symptom or syndrome</th>
<th>IBS</th>
<th>IBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>94</td>
<td>38</td>
</tr>
<tr>
<td>Sleep disturbance:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due to GI symptoms</td>
<td>2</td>
<td>179</td>
</tr>
<tr>
<td>Not due to GI symptoms</td>
<td>156</td>
<td>12</td>
</tr>
<tr>
<td>Menstrual disturbance</td>
<td>62/129</td>
<td>47/133</td>
</tr>
<tr>
<td>Urinary symptoms</td>
<td>134</td>
<td>31</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>67 (66 female)</td>
<td>8 (3 female)</td>
</tr>
<tr>
<td>Chronic fatigue syndrome</td>
<td>137 (105 female)</td>
<td>54 (26 female)</td>
</tr>
<tr>
<td>Anxiety or depression</td>
<td>89 (61 female)</td>
<td>16 (8 female)</td>
</tr>
<tr>
<td>Weight loss</td>
<td>12</td>
<td>183</td>
</tr>
<tr>
<td>Night sweats</td>
<td>6</td>
<td>141</td>
</tr>
</tbody>
</table>

GI Gastrointestinal; IBD Inflammatory bowel disease; IBS Irritable bowel syndrome

established by either their frequency or the requirement for medical treatment.

DISCUSSION
Algorithms for the positive diagnosis of IBS were first developed by Manning et al (9) and were subsequently refined by consensus panels (2,3). They tend to be restrictive and, thus, are suitable for generating a relatively homogeneous cohort of subjects for clinical trials. Formal diagnostic criteria do not, however, identify all patients who would receive a diagnosis of IBS from a physician (10-14), perhaps because they do not take into account the variability of clinical presentation and the presence of other symptoms. It has been repeatedly demonstrated that a clinical diagnosis of IBS is safe and not likely to require revision with time (15,16).

The present study demonstrated that patients with IBS and Crohn's disease differed in their reporting of a number of nongastrointestinal symptoms. Consideration of these symptoms might enhance diagnostic precision. For example, IBS patients were more than twice as likely to complain of headache, and many ingested large amounts of over-the-counter analgesics, including acetaminophen and nonsteroidal anti-inflammatory drugs. Other investigators have also found a high prevalence of headaches among IBS patients (4,5); however, except for drug toxicity and rare complications, there is no association between headaches and IBD.

It has been estimated that 28% to 74% of IBS patients describe significant difficulties with sleep (4,17). The association between fibromyalgia and sleep problems is also well-known (18). There is a significant correlation between dysfunctional gastrointestinal symptoms and the perceived quality of sleep the night before (17,19). The present study confirmed a previous finding (8) that sleep disturbance is common to both IBS and IBD patients, although it was far more likely to be related to gastrointestinal symptoms in the latter group. In fact, the complaint of awakening from sleep by physical symptoms should alert the physician to the possibility of organic disease.

The present study found that IBS patients were much more likely than those with Crohn's disease to experience urinary symptoms. Whorwell et al (4) found that individual symptoms, including frequency, urgency, hesitancy, nocturia and incomplete bladder emptying, are mentioned by up to one-half of patients with IBS. IBS patients are more likely than control subjects to complain of urinary problems (4,5,8) and to have abnormal urodynamic tests, especially detrusor instability (20).

There was a trend toward increased reporting of menstrual symptoms by IBS patients in this study, but the difference was not significant. Several investigators have found that IBS symptoms often coexist with chronic pelvic pain, premenstrual tension, dyspareunia, dysmenorrhea and other gynecological complaints (21-23).

In the present study, fibromyalgia was diagnosed in many more IBS than IBD patients, and almost all patients with both IBS and fibromyalgia were women. Large surveys have found that 30% to 70% of patients with a diagnosis of fibromyalgia experience altered bowel function, abdominal pain and/or excessive gas, thus satisfying the Rome criteria for IBS (24-27). Moreover, approximately one-third of patients who satisfy Rome criteria for IBS also have fibromyalgia syndrome. Approximately 90% of fibromyalgia patients are women (28), and it has even been suggested that the female preponderance among IBS patients is due to the coexistence of fibromyalgia (29). However, the association between fibromyalgia and Crohn's disease is questionable, having been found in a university outpatient gastrointestinal clinic (30) but not in a population study (31).
IBS patients are more likely than those with IBD to complain of fatigue (4,5) or to satisfy criteria for CFS (32,33). In the present study, the diagnosis of CFS or fibromyalgia was made by other consultants before the gastroenterology consultation, and was generally based on established criteria. Surveys of CFS patients have estimated that 35% to 63% also have IBS (34-36). It has even been suggested that IBS, CFS and fibromyalgia are related conditions, or manifestations of the same disorder, and that most patients have a defined psychiatric disorder (37).

As expected, symptoms usually regarded as alarm features for organic disease were more frequently reported by patients with Crohn's disease than by those with IBS. These symptoms included weight loss, night sweats and sleep disturbance due to abdominal pain or diarrhea.

Approximately two-thirds of the IBS subjects in the present study were female. Although women are more likely than men to use health care resources (38), this does not explain the preponderance of women who are identified with IBS symptoms in population studies and clinical settings, especially in referral practices (39-43). It has been suggested that the Manning and Rome criteria are more appropriate for female than male subjects (44-46). The preponderance of female patients with Crohn's disease is slightly greater than that reported in the literature (47).

Limitations of the present study include the fact that it is based on a single gastroenterology practice. It is therefore subject to referral bias, and the results might not be applicable to other settings. Nevertheless, the findings are compatible with those reported by other investigators. No specific investigations of nongastrointestinal symptoms were undertaken, but many of these patients had been evaluated by other specialists. Selection bias was avoided by the fact that the subjects were consecutive patients with either IBS or Crohn's disease, as established by radiological and/or endoscopic investigations, and the diagnoses were stable over time. Moreover, the questionnaire was administered only during the initial visit; thus, patients who repeatedly attended the office were not more likely to be included in the study.

CONCLUSIONS

IBS has been defined as "a variable combination of recurrent gastrointestinal symptoms not explained by structural or biochemical abnormalities" (48). Aside from the Rome criteria, there are many complaints unrelated to the gastrointestinal tract that characterize patients with IBS. It would appear, therefore, that IBS is a systemic disorder involving many nongastrointestinal symptoms that are usually labelled 'functional'. Perhaps these features could be included in the diagnostic formulation for IBS. Their recognition could allow the evaluation of these patients to be simplified, thus reducing the number of investigations that would be required.

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REFERENCES
