



## **IBS IN MEN: A DIFFERENT DISEASE?**

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The gastrointestinal tract is anatomically gender-neutral. While its furthest extremity is in proximity to the genital organs, surgeons, endoscopists, anatomists, and pathologists observe no differences between the intestines of males and females. It should follow that symptoms and other manifestations of irritable bowel syndrome (IBS) should be the same in men as they are in women. This appears not to be so. This article will concentrate on gender differences in the epidemiology, symptoms, physiology, psychosocial issues, and responses to treatment of IBS. For IBS is not a disease in women only. Men may also be troubled by it and should not be shy to seek proper diagnosis and advice.

**EPIDEMIOLOGICAL DIFFERENCES:** In Western countries, women appear more likely than men to have IBS. Random studies in the U.S. and Canada suggest that the female to male ratio in the population is 2:1. Only a portion of those men and women with IBS consult physicians; this ratio, in general practice and in gastroenterology clinics, is 3 or 4:1. Thus, a man is less likely than a woman to respond positively to questionnaires about IBS symptoms, and is even less likely to report symptoms to a doctor. The reasons for these differences are unknown. The phenomenon may reflect greater health consciousness among women, a misperception about IBS, and/or a "macho" attitude among men. Paradoxically, in many Eastern countries, it appears that men with IBS are four times more likely than women to consult doctors. Therefore there must be cultural and other reasons for the health care seeking behavior of men and women who have IBS symptoms. These data provoke the question, "Why does a person with IBS symptoms choose to see doctors?" While some studies suggest that men have different responses to pain than women, the answer is unlikely to be found in the nature of the symptoms themselves. Rather, it may be found in the psychosocial, cultural, and other characteristics of the affected person.

**DIAGNOSTIC DIFFERENCES:** The Manning and the Rome II criteria are symptom-based methods for diagnosing IBS. The Manning criteria are symptoms found to be more common in IBS than in organic abdominal disease (Table 1). They are the basis of many population surveys and clinical studies. It appears that the first three symptoms (those relating defecation to pain) are most characteristic of IBS. Thus two out of these three criteria are necessary to diagnose IBS in the Rome II criteria (Table 2). The other symptoms listed in Table 2 are not required, but the more of them that are present, the more likely that IBS is present. The Manning criteria appear to be less effective in diagnosing IBS in males than females. This observation is explained by less frequent reporting of distension (bloating), incomplete evacuation, and mucus by males. Perhaps men were less likely to notice these symptoms? However, distension is much more common in women generally. These data not only explain the lessened sensitivity of the diagnostic criteria in men compared to women, but could also account for the apparent lower prevalence of IBS among men in the community. There are conflicting data regarding the effect of menstruation on IBS symptoms. In one study, subjects with and without IBS experienced changes in

abdominal pain, bloating, and stool consistency through the menstrual cycle. Bloating was significantly greater in certain menstrual phases than others and the effect is exaggerated in IBS subjects. No comparable hormonal effects have been demonstrated in men. A more important issue is the misdirection of women with IBS and abdominal pain to gynecological and surgical consultants often in the guise of "pelvic pain." It is known that IBS subjects are more likely than controls to have abdominal surgery. The mistaken association of IBS pain with a surgical condition in women may further explain their greater healthcare seeking behavior.

## **THE MANNING CRITERIA**

### **Symptoms More Likely to be found in Irritable Bowel Syndrome (IBS) than Organic Abdominal Disease:**

- Pain eased after bowel movement
- Looser stools at onset of pain
- More frequent bowel movements at onset of pain
- Abdominal distension
- Mucus per rectum
- Feeling of incomplete emptying

Manning et al, BMJ 1978;2:653-4

By convention, the presence of abdominal pain and at least two of the above symptoms are considered sufficient to diagnose IBS.

## **ROME II DIAGNOSTIC CRITERIA\* FOR IBS**

**Twelve weeks\*\* or more in the past twelve months of abdominal discomfort or pain that has two out of three features:**

- a. Relieved with defecation
- b. Onset associated with a change in frequency of stool
- c. Onset associated with a change in form (appearance) of stool

\* In the absence of structural or metabolic abnormalities to explain the symptoms.

The twelve weeks need not be consecutive.

**The following symptoms are not essential for the diagnosis, but one or more are usually present.**

**They add to the doctor's confidence that the intestine is the origin of the abdominal pain. The more of these symptoms that are present, the more confident is the diagnosis of IBS:**

- Abnormal stool frequency (greater than 3 bowel movements/day or less than 3 bowel movements/week)
- Abnormal stool form (lumpy/hard or loose/watery stool) more than 1/4 of defecations
- Abnormal stool passage (straining, urgency, or feeling of incomplete evacuation) more than 1/4 of defecations
- Passage of mucus more than 1/4 of defecations
- Bloating or feeling of abdominal distension more than 1/4 of days

Thompson et al. Gut. 1999;45suppl 2:43-47

**PSYCHOLOGICAL DIFFERENCES:** Clinical studies of IBS include so few men that comparisons of the prevalence of psychological states may not be justified. However, it is well known that among IBS patients referred to gastroenterologists, depression, anxiety, panic attacks, and life stress are more

common than in other diseases. It appears that these associations are coincidental because they are not present in IBS subjects who do not see doctors. The phenomenon is best understood when it is pointed out that gastroenterologists see most or all subjects with chronic organic gut disease, such as inflammatory bowel disease, whereas they see 20% of those with IBS. These IBS patients have generally more severe symptoms and also include most of those who have psychological issues. Furthermore, women are more likely than men to have a mood disorder and to consult doctors in general. One cannot ignore the astonishing frequency with which sexual and physical abuse accompanies IBS in reports from specialist clinics where more severe cases are referred. [See accompanying article on Emotional Abuse and IBS.] While such abuse does occur in men, it is most pervasive in women. The meaning of the relationship of abuse to IBS is unclear. One explanation may be that, like depression, abuse is most prevalent in individuals with IBS who have consulted specialists. Perhaps it destroys self esteem and coping in a way that leads to health care seeking behavior more so in women than men. These psychosocial differences may help to explain why fewer men with IBS see doctors.

**PHYSIOLOGICAL DIFFERENCES:** There are suggestions that the male gut may be less viscerally sensitive than that of females. For example, males appear to be less sensitive to rectal distension than women. As a result of studies in animals, it is hypothesized that hormones such as estrogen may increase gut sensitivity, especially since these gender differences are apparently abolished after ovariectomy. Gender differences of hormone activity in the enteric nervous system (which regulates intestinal activity) and its connections to the central nervous system deserve much more study.

**TREATMENT DIFFERENCES:** There is reason to suspect that treatment responses in men may be different from those in women. Certain opiates provide less postoperative analgesia (pain relief) to men than women. It also appears that men experience fewer side effects to drugs. Until recently, the only gender differences in IBS treatment were the well-known reluctance of men to seek health care, their hesitance to comply with advice, and perhaps their lesser risk for unnecessary surgery. There is a suggestion that men may not respond as well to hypnotherapy. It is of interest that a new serotonin 5-HT<sub>3</sub> antagonist (alosetron, which was withdrawn from the market in November 2000) and a 5-HT<sub>4</sub> agonist (Tegaserod, which as of this publication date has not been approved by the U.S. FDA for market) were observed to be effective in female, but not male IBS patients. Could it be that IBS in males and females is fundamentally different after all, and that the above epidemiology and symptom observations reflect these differences? Or, is there some hormonal difference that affects gut function and the response to certain drugs? The number of men in existing clinical studies is small, and we must await more data before jumping to conclusions. If there is a true difference in male and female IBS, then we must explore the reason. Future IBS trials should include more men.

**CONCLUSIONS:** Whether or not there are true gender differences in IBS is moot. The truth will have to await a more lucid understanding of the disorder. However, in North America, men are less likely than women to admit to IBS symptoms, to see doctors for them, to be found in specialist clinics, and to participate in clinical trials. There may also be differences in the symptoms themselves, in psychosocial associations, and in responses to therapy. With better understanding of the diagnosis, gender differences, and meaning of IBS symptoms, we may better design therapy of IBS in men and women. Meanwhile, it should be understood that IBS does commonly occur in men, and may in some be distressing and disabling. Such men should be encouraged to seek medical help, where the principles of diagnosis, explanation, reassurance, and lifestyle advice are as pertinent for men as they are in women. We need to understand why men in North America seldom seek medical help for their IBS, and why they are

apparently less reticent in India and Japan. Despite their fewer numbers, men should be appropriately represented in psychological, physiological, and therapeutic studies of IBS.

**References:**

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- Heaton KW and Thompson WG. Irritable Bowel Syndrome. Health Press. Elizabeth House, Queen Street, Abbingdon, Oxford, UK. 1999. "Article reprinted with permission from the International Foundation for Functional Gastrointestinal Disorders, from Fall 2001 issue of *Participate*".