

## Chapter 2

# Clinical Features of Irritable Bowel Syndrome

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There is no specific reliable biomarker for IBS, therefore the condition is defined predominantly by symptoms; however, because of their tremendous magnitude, e.g. recurrent abdominal pain and/or discomfort, altered stool consistency and frequency, distention or bloating the diagnosis of IBS is troublesome (see Box 2.1). The occurrence of these ailments may further prompt dehydration, sleep deprivation, anxiety or lethargy and lead to time off work, social awareness and contribute to overall decrease in quality of life.

### **Box 2.1. Warning signs experienced by IBS patients that warrant consultation with GP**

All people presenting susceptibility for IBS should be examined whether they have any “red flags” indicators such as unintentional and unexplained weight loss, progressive or unrelenting pain, family history of bowel or ovarian cancer, rectal bleeding or changes in bowel habits for more than 3 weeks, or 6 weeks in a person aged over 60 years. The presence of warning signs may point at a greater probability of disease occurrence, thus their exclusion should be done as quickly as possible.

The proper diagnosis can be made if the above-mentioned factors will be accompanied with at least two of the following:

- changing in stool passage (straining, urgency, incomplete evacuation)
- bloating, distention, tension, hardness
- worsening of symptoms after food intake
- passage of mucus.

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Additionally, the occurrence of other symptoms such as nausea, backache or bladder symptoms may be used to support the diagnosis of IBS.

A detailed history of the abdominal pain and any associated symptoms e.g. the onset, duration, site, frequency and factors that can ease the pain are important characteristics in determining IBS.

Importantly, approximately 30 % of IBS-D patients experience loss of bowel control. For those patients, the symptoms impose a considerable constraint on everyday life—fear of an attack of diarrhea that limits their activities such as shopping, holidays or work.

## 2.1 Men Versus Women and IBS

Gender differences in IBS are well-established—the rate of IBS in general is 1.5–3-fold higher in women than men. Women are more sensitive and seek support from healthcare much more frequently. Moreover, they are able to depict their condition more precisely in comparison to men, which can have a reflection in current general rate.

The classic example of IBS patient is a young woman experiencing abdominal pain that is relieved by passage of multiple loose liquid stools. Her symptoms generally appear for more than 3 months and can be exacerbated by e.g. stress or diet intolerance. Worth mentioning, due to late luteal and early menses phases women frequently report nausea and other extraintestinal symptoms.

Overall, women are twice as likely as men to suffer from constipation-associated symptoms such as bloating, straining, abdominal distension and feelings of incomplete evacuation. Men tend towards diarrhea-associated symptoms, including watery stools, enhanced stool frequency, abdominal pain and bloating [8].

## 2.2 Abdominal Pain

Visceral hypersensitivity is present in all IBS subtypes albeit its intensity shifts from mild to severe.

It is generally accepted that patients with mild-to-moderate IBS frequently suffer from peripherally-generated symptoms, including intermittent, abdominal pain, which is relieved by defecation [5]. Increase in intestinal motility or visceral afferent firing can promote and amplify patient's ailments, and simultaneously increase psychological distress, which—along with psychosocial contributors—exacerbates symptom intensity. This vicious circle may significantly affect one's

quality of life, thus the severity of IBS has to be understood from different points of view including peripheral signs as well as central dysregulation.

Without any doubt, abdominal pain is the most bothersome symptom which frequently serves as a predictor to seek medical care by IBS sufferers. Its intensity is augmented after food intake or during time of stress. Additionally, in contrast to other phases of menstrual cycle, abdominal and rectal pain, and bloating are worsened by menstruation.

## **2.3 Distention**

A study, which comprised of 2259 IBS subjects demonstrated that patients with IBS-C are 14-fold more likely to suffer from distention, when compared to controls. The probable cause is the augmentation in bacterial overgrowth, due to slower colonic transit that in turn prompts colonic fermentation and increases distention with gas and stool. Vast majority of IBS patients are aware of their condition and many of them should easily describe in detail the anatomical localization and type of symptoms they experience.

## **2.4 Bloating**

Abdominal fullness, pressure or a sensation of trapped gas is commonly experienced by IBS patients, more frequently among IBS-C than IBS-D. Sufferers report worsening of bloating especially after meals, with the tendency of this symptom to disappear overnight. Among females with IBS, bloating occurs commonly in the lower abdomen, perhaps owing to abnormalities of intestinal gas handling; whether the site of symptom is related to gynecological factors is still unknown.

In general, abdominal bloating positively correlates with the degree of abdominal distention solely in IBS-C, indicating different pathophysiology between subtypes of IBS [7].

## **2.5 Nausea**

The study on 144 IBS patients revealed gender-related preponderance in the occurrence of nausea—about 2.5-fold higher incidence rate was observed in woman than men [1]. Additionally, in the study of 714 ROME I positive IBS patients, nausea was shown to be more common in premenopausal than postmenopausal

women; however, this disparity might stem from the effect of the menstrual cycle, and be independent of the intake of oral contraceptives [6]. Of note, the variability in reproductive hormone levels during the menstrual cycle and changes in ovarian function at menopause impact visceral sensitivity and GI motility much more strongly among woman with IBS, rather than healthy individuals.

## 2.6 Psychological Disorders

Irrespective of the subtype, patients suffering from IBS tend to exhibit psychiatric and psychosocial disturbances, they are more vulnerable to stress and generally exhibit a high degree of abnormal illness behavior. Over half of all IBS patients report more severe somatic symptoms, including symptom-related fears, anxiety, depression or somatization [2, 3].

Worth mentioning, nearly half of all IBS cases coexist with other functional disorders such as chronic fatigue syndrome, chronic headache, temporomandibular joint dysfunction, fibromyalgia, or chronic pelvic or back pain.

## 2.7 Non-gastrointestinal Symptoms

The majority of IBS patients exert a range of extra-gastrointestinal symptoms, indicating the concomitant involvement of other non-GI organs, and suggest a generalized rearrangement of the central nervous system. The most common include: lethargy, headache, backache, urinary-associated symptoms (nocturia, urgency of micturition, incomplete bladder emptying, dyspareunia) [9].

## 2.8 Acute and Chronic Symptoms in IBS

The clinical course of IBS is chronic, although symptoms vary and oscillate not only between subtypes, but also within the same patient over time. At the beginning, symptoms may fluctuate over a short period of time i.e. weeks or months, but in many cases the severity tends to stabilize over 1–2 years follow-up. Some patients, especially those undiagnosed or those who do not implement their GPs' recommendations into their daily life, may develop new symptoms—not always specifically attributed to their IBS subtype—which may rise the possibility of occurrence of other organic pathology [4].

## References

1. Anbardan SJ, Daryani NE, Fereshtehnejad S-M et al (2012) Gender role in irritable bowel syndrome: a comparison of irritable bowel syndrome module (ROME III) between male and female patients. *J Neurogastroenterol Motil* 18:70–77. doi:[10.5056/jnm.2012.18.1.70](https://doi.org/10.5056/jnm.2012.18.1.70)
2. Burbige EJ (2010) Irritable bowel syndrome: diagnostic approaches in clinical practice. *Clin Exp Gastroenterol* 3:127–137. doi:[10.2147/CEG.S12596](https://doi.org/10.2147/CEG.S12596)
3. Canavan C, West J, Card T (2014) The epidemiology of irritable bowel syndrome. *Clin Epidemiol* 6:71–80. doi:[10.2147/CLEP.S40245](https://doi.org/10.2147/CLEP.S40245)
4. Canavan C, West J, Card T (2015) Change in quality of life for patients with irritable bowel syndrome following referral to a gastroenterologist: a cohort study. *PLoS ONE* 10:1–13. doi:[10.1371/journal.pone.0139389](https://doi.org/10.1371/journal.pone.0139389)
5. Drossman DA, Chang L, Bellamy N, et al (2011) Severity in irritable bowel syndrome: a Rome Foundation Working Team report. *Am J Gastroenterol* 106:1749–1759; quiz 1760. doi:[10.1038/ajg.2011.201](https://doi.org/10.1038/ajg.2011.201)
6. Heitkemper MM, Cain KC, Jarrett ME et al (2003) Symptoms across the menstrual cycle in women with irritable bowel syndrome. *Am J Gastroenterol* 98:420–430. doi:[10.1111/j.1572-0241.2003.07233.x](https://doi.org/10.1111/j.1572-0241.2003.07233.x)
7. Houghton LA, Lea R, Agrawal A, et al CLINICAL–ALIMENTARY TRACT Relationship of abdominal bloating to distention in irritable bowel syndrome and effect of bowel habit. doi: [10.1053/j.gastro.2006.07.015](https://doi.org/10.1053/j.gastro.2006.07.015)
8. Jiang X, Locke Iii GR, Choung RS, et al Prevalence and risk factors for abdominal bloating and visible distention: a population-based study. doi: [10.1136/gut.2007.142810](https://doi.org/10.1136/gut.2007.142810)
9. Spiller R, Aziz Q, Creed F et al (2007) Guidelines on the irritable bowel syndrome: mechanisms and practical management. *Gut* 56:1770–1798. doi:[10.1136/gut.2007.119446](https://doi.org/10.1136/gut.2007.119446)

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