ISSN 2231-2218

ASIAN JOURNAL OF PHARMACEUTICAL AND BIOLOGICAL RESEARCH

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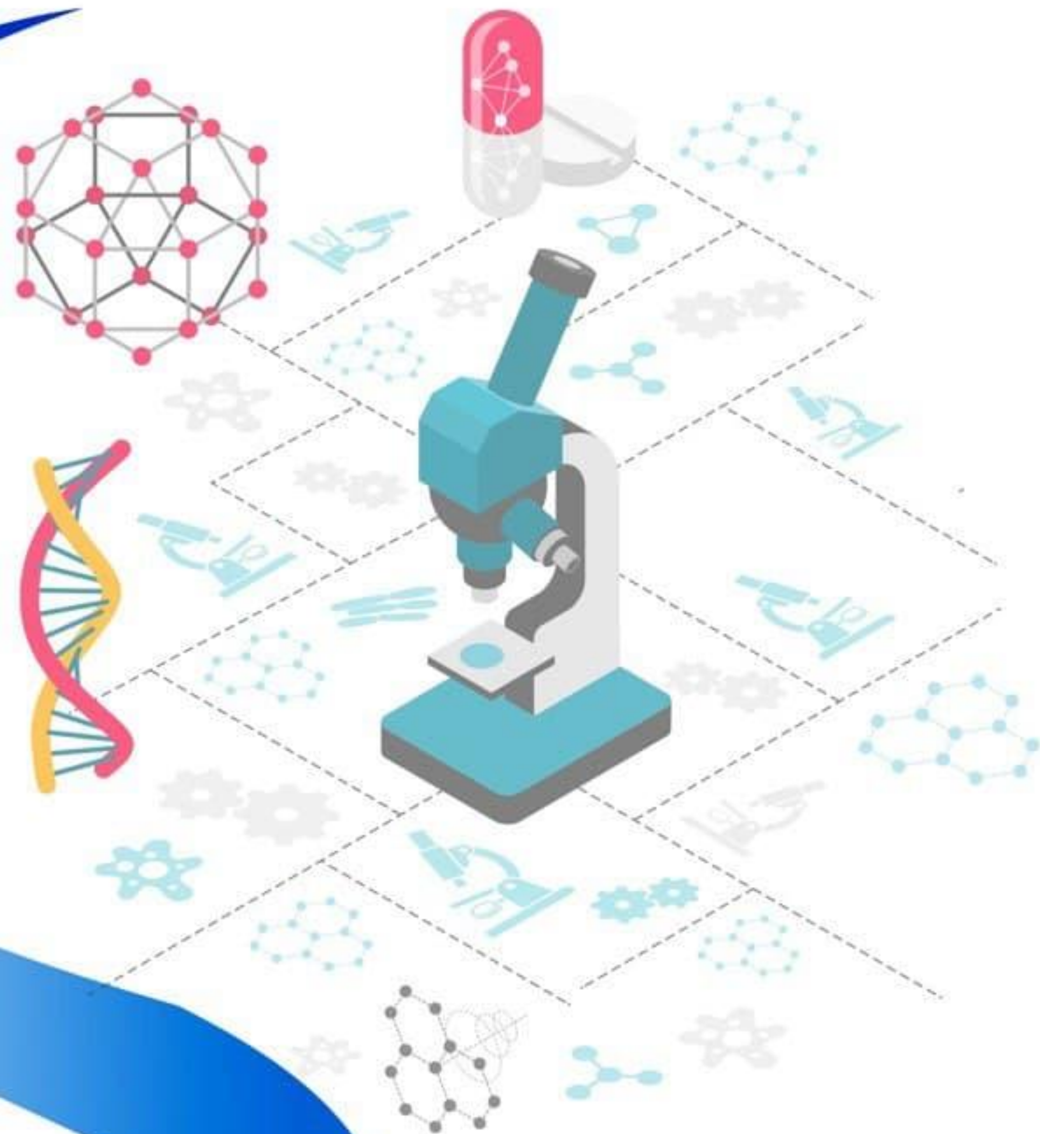

Indexed by:

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Asian journal of Pharmaceutical and biological research 2231-2218
http://www.ajpbr.org/
Universal IMPACT factor 7
SJIF 2022: 4.465
Volume 12 Issue 2
MAY-AUG. 2023

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http://www.ajpbr.org/
Universal IMPACT factor 7
SJIF 2022: 4.465
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IRRITABLE BOWEL SYNDROME: STAGES OF DIAGNOSIS

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A. Manning created the first set of formal criteria that made it possible to diagnose IBS with a certain degree of certainty without the need for an extensive expensive examination. And this set of symptoms formed the basis for the development of the Rome diagnostic criteria for IBS in the III edition that existed until recently [1].

In 1984, Kruis and colleagues reported a similar set of symptoms used to define IBS: abdominal pain; bloating; and altered bowel function. In contrast to the Manning criteria, the Cruise criteria paid more attention to the duration of symptoms and actually suggested a two-year duration. More importantly, the Cruis criteria emphasized the need to consider warning signs ("red flags") as well as rule out organic disease in combination with routine physical examination and basic laboratory tests (CBC and ESR). Ultimately, however, these criteria turned out to be too cumbersome to be used in clinical practice and lost their popularity [2, 24-28].

In 1988, a group of international experts met in Rome to discuss functional gastrointestinal disorders (FGI). The main goal was to classify FGID using a symptom-based classification scheme, emphasizing the fact that patients report symptoms despite the absence of chemical, radiological, or physiological abnormalities. This culminated in the publication of the Rome Criteria in 1992 (later known as Rome I), which raised the medical community's awareness of FGID. Bloating, the main symptom of many patients with IBS, was no different from abdominal pain. The IBS criteria have been easily incorporated into research studies but have proven cumbersome for clinical practice.

A few years later, the Rome Committee met again to revise the original Rome I criteria based on feedback from clinicians, investigators, regulators, and new information gleaned from the scientific literature. The revised Rome II criteria were

published in 1999 [4,2]. Like Rome I, Rome II required symptoms to have been present for at least 12 weeks out of the preceding 12 months, although the times need not be consistent. The term "discomfort" was added to the definition, and a new criterion was added, noting that two of the three criteria for abdominal pain should have been required for the diagnosis of IBS to guarantee the presence of altered bowel habits. At that time, patients were not divided into specific subtypes based on bowel habits [5].

The Rome III criteria were introduced in 2006, with the most significant change being the classification of IBS into subtypes. Subtypes were based on stool consistency rather than stool frequency and included IBS-C (constipation), IBS-D (diarrhea), IBS-M (mixed) and IBS-U intermittent (the present stool consistency disorders are not sufficient to apply the criteria of the first three IBS options) option [6]. Another significant change was that the symptom of bloating as the main symptom was removed from the definition. This change was based on the notion that bloating as a symptom is so common that it is neither sensitive nor specific to IBS. In a validation study conducted by Ford and colleagues in patients with IBS symptoms who underwent colonoscopy, the sensitivity of the Rome III criteria was 68.8%,

Since the release of the Rome III criteria in 2006, research on IBS has increased dramatically. Creative research work in the basic and clinical sciences has led to the identification of new etiologies of IBS and to a better understanding of the complex pathophysiology underlying the onset of IBS symptoms. Many new drugs have come on the market that have focused on specific subtypes of IBS, based in part on a better understanding of the underlying pathophysiology. These advances in knowledge, along with a desire to make the Rome criteria more clinically useful, led to several key changes to the Rome criteria when the fourth iteration was released in 2016 [2,7].

Rome IV determinedirritable bowel syndrome (IBS) as a functional bowel disorder in which recurrent abdominal pain is associated with defecation or a change

in bowel habits. Bowel disorders (eg, constipation, diarrhea, or a combination of constipation and diarrhea) are usually present, as are symptoms of bloating/bloating. Symptoms must have appeared at least 6 months before diagnosis, and symptoms must have been present for the past 3 months.

The criteria of Rome IV differ from the criteria of Rome III) in several distinct ways. First, the term "discomfort" has been removed from the current definition and diagnostic criteria because some languages do not have the word "discomfort" or have different meanings in different languages. In addition, based on a study of IBS patients who reported significant differences in understanding of these terms, it is not clear whether the difference between pain and discomfort is qualitative or quantitative. Secondly, the frequency of abdominal pain was increased from 3 days per month to one day per week on average. Although this change appears small, it was based on a large population-based study to increase the sensitivity and specificity of the criteria. Third, bloating and distension are now recognized as common symptoms. This highlights the prevalence of these symptoms in patients with IBS and other FGIDs (Chronic constipation, functional dyspepsia) and reinforces the earlier results of Kruis et al. Fourth, the previous criteria included a somewhat ambiguous phrase about the presence of disordered defecation. This has now been clarified with the phrase "... intestinal disorders (constipation, diarrhea or a mixture of constipation and diarrhea) are usually present." Finally, it is now expressly stated that IBS subtypes are based on predominant bowel habits on days with abnormal bowel movements. The Rome Committee, using data from a large population-based study (Rome Regulatory Survey of Gastrointestinal Symptoms; unpublished), determined that analysis of days without bowel movement did not increase bowel subtype specificity, and analysis of only days with abnormal bowel movements increased specificity [8,2, 29-32].

Table 2. Stages of diagnostic criteria for IBS

A. Manning (1978)	Rome I (1989)	Rome II (1999)	Rome III (2006)	Rome IV (2016)
Two or more of the following symptoms: • bloating • relief of pain during bowel movements • frequent stools with pain • loose stools at the beginning of pain • passage of mucus • feeling of incomplete emptying	At least 3 months of continuous or recurrent pain in stomach: • relief from bowel movements or • association with changes in stool consistency At least 2 of the following symptoms on at least 25% of days: • change in stool frequency • changing the shape of the chair • changing the passage of the chair • passage of mucus • bloating or distension	At least 12 weeks in the last 12 months of continuous or recurrent abdominal pain or discomfort At least 2 of the following symptoms: • relief from bowel movements • change in stool frequency • changing the shape of the chair Onset of symptoms more than 12 months before diagnosis	At least 3 days per month for the last 12 weeks of continuous or recurrent abdominal pain or discomfort At least 2 of the following symptoms: • relief from bowel movements • change in stool frequency • changing the shape of the chair Onset of symptoms more than 6 months before diagnosis	Recurrent abdominal pain, on average at least 1 day/week in the past 3 months associated with 2 or more of the following: • associated with defecation • associated with changes in stool frequency • associated with a change in the shape of the stool Criteria are valid if they have been available within the last 3 months with symptom onset at least 6 months ago!

Stages of diagnostic criteria for IBS are presented in Table. 2.

IBS is subdivided into 3 main subtypes according to the predominant type of colonic disorder: IBS with constipation (IBS-C), IBS with diarrhea (IBS-D), and mixed subtype of IBS (IBS-M) (Table 3).

Patients who meet the diagnostic criteria for IBS, but in whom it is difficult to accurately identify one of the three types, should be categorized as unclassified IBS [9,10]. Difficulties in choosing 1 of the 3 main subgroups to which the patient belongs may arise as a result of frequent changes in diet and the use of various drugs that affect transit through the gastrointestinal tract. The choice of subtype should be based on the predominant type of intestinal contractility disorder. The Bristol Stool Shape Scale should be used to assess stool consistency.

Table 3 Diagnostic criteria for subtypes of IBS (Rome IV criteria, 2016)

Subtype	Characteristic
SRK-C	More than a quarter (25%) of all acts of defecation - 1st or Type 2 (hard or fragmented stools) on the Bristol Stool Shape Scale and less than a quarter (25%) - 6th or 7th type (liquid or watery)
SRK-D	More than a quarter (25%) of all acts of defecation - the 6th or 7th type (liquid or watery) according to Bristol stool shape scale and less than one quarter (25%) - Type 1 or 2 (hard or fragmented stools)
SRK-M	More than a quarter (25%) of all acts of defecation of the 1st or type 2 (hard or fragmented stools) Bristol stool shape scale and more than a quarter (25%) - 6th or 7th type (liquid or watery)
Unclassified IBS	Patients who fit the diagnostic criteria for IBS, but a precise definition for which

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SJIF 2022: 4.465
Volume 12 Issue 2
MAY-AUG. 2023

	one of the three types is difficult

The Bristol Chair Shape Scale (BCSS) was developed in the 1990s at the Bristol Royal Infirmary in England [11]. The authors described seven types of stool, which are noted below:

- Type 1: Separate hard lumps like nuts (hard to convey)
- Type 2: Sausage but lumpy
- Type 3: Like a sausage but cracked on the surface
- Type 4: like sausage or snake, smooth and soft
- Type 5: Soft drops with clear edges (easy to transfer)
- Type 6: Fluffy pieces with carved edges, soft stool
- Type 7: watery, no solids, completely liquid

The authors classified type 1 and 2 stools as associated with constipation, while type 6 and 7 stools were associated with diarrhea (and type 5 stools to some extent). Stool types 3 and 4 were considered normal stool. BSFS is a convenient way of describing the bowel habits of patients and is commonly used in clinical trials. In addition, at two extremes (Bristol stool types 1 and 2 or types 6 and 7), stool shape serves as a crude surrogate marker for colonic transit. Patients with IBS-C have >25% of their bowel movements associated with BCSS 1 or 2, while patients with IBS-D have >25% of their bowels associated with BSFS 6 or 7. Those with a mixed subtype of intermittent constipation and diarrhea (IBS-C) has >25% of their bowel movements associated with BCSS 1 or 2 and >25% of their bowels associated with BSFS 6 or 7 [2].

Thus, based on the described scale, taking into account the frequency of occurrence of one type or another, the doctor establishes the form of IBS. At the same time, it must be understood that the same patient during the natural course of their disease can move from one type of IBS to another.

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