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Published: August 31, 2022

Citation: Saad F. Habba, 2022. Is Diarrhea Predominant Irritable Bowel Syndrome (IBS-D) a Myth?, Medical Research Archives, [online] 10(8). https://doi.org/10.18103/mra.v10i8.2975

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DOI
https://doi.org/10.18103/mra.v10i8.2975

ISSN: 2375-1924

RESEARCH ARTICLE

Is Diarrhea Predominant Irritable Bowel Syndrome (IBS-D) a Myth?

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ABSTRACT

The prevalence of Diarrhea Predominant Irritable Bowel Syndrome (IBS D) and chronic diarrhea has been one of the most troublesome diagnoses inflicting approximately 5% of the population annually. These entities have always perplexed physicians that attempt to offer relief to millions of sufferers. Because of the magnitude of the problem, physicians and researchers have been reaching out to further classify and understand these entities. This review will shed some light on current analysis and thinking of IBS-D and offer a challenging new alternative approach in understanding and treatment for this condition. It will indicate that IBS-D is not a true clinical entity in fact, it demonstrates that a more detailed history and clinical work up of patients may indeed lead to a true and treatable clinical diagnosis, highlighting a more significant role of Bile acid abnormalities in the pathogenesis of chronic diarrhea.

Main Text

Physicians have long been struggling with managing diarrhea predominant irritable bowel syndrome (IBS-D). Approximately 10-15% of adults and adolescents have been diagnosed at some point with IBS (1,2,3,4) which adversely affect quality of life (5,6). In general, irritable bowel syndrome is made of four subdivisions. IBS constipation (IBS-C) 25%, IBS diarrhea (IBS-D) 25%, IBS Mixed (IBS-M) 25% and irritable bowel syndrome unclassified (IBS-U) (7). This article will be addressing irritable bowel syndrome diarrhea predominant form (IBS-D).

Chronic diarrhea is defined as three or more bowel movements per day for at least three months (8). Latest IBS Rome IIII criteria identifies abdominal pain as a fundamental element associated with chronic diarrhea associated with a change in pattern of stool (9,10). This has been addressed in multiple revisions of Rome criteria to further define and separate IBS–D from functional chronic diarrhea. Practically speaking, it is hard to believe that a patient can suffer chronic diarrhea without experiencing a certain degree of abdominal pain/discomfort associated with it. So, to make this as a fundamental element for diagnosis of IBS-D is rather challenging. None the less, this is the latest diagnostic criteria used for IBS-D diagnosis

Because of the magnitude of patients suffering from this syndrome (1,2,3), managing this entity has been of great significance and challenging to say the least. Millions of sufferers have struggled with management of symptoms subsequently, physicians have desperately attempted to understand this entity's pathogenesis and treatment for years (10,11,12). Unfortunately, research did not lead us to a definitive understanding of the underlying cause resulting in a barrage of therapeutic attempts which have been at best, marginally successful. Most physicians (70%) consider IBS as a diagnosis of exclusion and at times other definitive clinical entities such as lactose and Gluten intolerance have been clenched to the diagnosis of IBS.

In view of the significant economic and personal impact of this condition, many publications have been forthcoming but none with a real solution. Gastroenterologists, primary physicians, and clinical researchers have reached out to different analyses to understand the possible pathogenesis of this syndrome (8). These studies range from motility disorders to bacterial overgrowth to psychological and hormonal abnormalities. All have proven to have marginal contributions to the understanding of IBS-D resulting in frustrating therapeutic attempts without favorable outcomes. Many therapeutic attempts have been suggested varying from dietary restrictions such as FODMAP diet (13,14,15,16,17), High fiber diet (15,16,18), and therapeutic agents such as to 5-hydroxytryptamine 3 receptors antagonists (19,20,21), antidepressants ((22,23,24,25), antispasmodic agents (26,27), antibacterial agents (28), and even probiotics have all resulted in marginal symptomatic relief.

Because of the frustration of physicians dealing with this entity, and the multiple attempts in achieving relief, some studies have challenged the existence of IBS -D as a true clinical entity (29). This is a difficult concept to accept since all of us have had IBS diagnosis well imbedded in our teachings not withstanding giving physicians a 'way out' when they cannot help their patients.

Challenging studies and reviews (8,33) including a large retrospective clinical study indicated that IBS-D is no more than a collection of different medical entities rather than a single entity shed some light on this concept (29). This study of 303 patients with presumed diagnosis of IBS-D indicated that different definitive clinical entities were identified in the IBS-D group. These entities when isolated, can be individually treated successfully. It indicated that 31% of patients presenting with symptoms of IBS-D can be identified and treated by simply taking a time-honored detailed history without doing any work up. Conditions such as lactose intolerance, specific food intolerance and a trial of Gluten and gas producing foodstuff abstinence may result in favorable outcomes. Also in the study, as well as others, bile acid malabsorption/excretion abnormalities constituted 68% of patients presenting with symptoms of IBS-D. In particular, "Habba Syndrome" constituted 41% of patients presenting with chronic diarrhea and /or IBS-D. This condition relates chronic diarrhea with objective radiologic confirmation of gallbladder dysfunction (30).

Excessive bile acid in colon whether it is secondary to post cholecystectomy, absence or diseased Terminal Ilium or dysfunctional gallbladder, results in increased colonic flora production of secondary bile acids which can increase colon fluid secretion resulting in diarrhea (31). Bile acid sequestrants have long been established as a successful therapeutic modality in treating diarrhea in these patients (32).

Different studies emphasize the significant role of bile acids in chronic diarrhea pathogenesis. In one study (29), treatment with Bile acid binding agents in patients with dysfunctional gallbladder resulted in 98% symptoms relief. Of note, 5% of patients had more than one condition contributing to symptoms of chronic diarrhea. This observation again emphasizes the significance of proper clinical work up in patients with chronic diarrhea not responding to conventional therapeutic maneuvers before tagging them with an exclusion wastebasket diagnosis of IBS-D. Unfortunately, in the most recent ACG review of the management of IBS (31), bile acid malabsorption has been given a very low level of confidence in therapeutic grading. It does however emphasize the value of detailed work up in high definitive clinically suspected patients.

The principle of not accepting IBS-D as a true clinical entity is a very challenging task. For years we, as physicians, have always accepted IBS-D as a clinical entity however, perhaps it is time to move away from that thinking and accept that irritable bowel syndrome is a self-created entity with no concrete pathogenic bases (29,33). Also, it is imperative to understand that detailed clinical history and organized clinically indicated work up may result in a different diagnosis that is real and treatable. Only then we will be able to shed some relief to millions of suffering patients who are desperately aiming to lead a normal life and symptomatic relief.

This approach is different from what is currently acceptable hence, it is more challenging to embrace. Most guidelines indicate limited work up of chronic diarrhea and IBS-D with a trial of different marginally beneficial therapeutic attempts which may result in missing real clinical entities that offer an answer to the problem. In the absence of initial noninvasive workup, more in depth assessment and investigations should be carried out before accepting the diagnosis of IBS-D. The more we move away from the "IBS-D" umbrella, the more we can come up with a definitive clinical answer to this enigma. This different view also emphasizes a new vision to the significant role of the bile acid binding agents play in treating patients with 'Diarrhea Predominant Irritable Bowel Syndrome' and chronic diarrhea.

Perhaps the time has come for physicians to accept that IBS-D is possibly a myth that we all have clinched to because of our frustration in offering real answers to millions of sufferers from this condition.

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