Irritable Bowel Syndrome

CASE REPORT

Probiotics for Diarrhoea – Predominant Irritable Bowel Syndrome

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ABSTRACT
BACKGROUND: Irritable bowel syndrome is a gastrointestinal condition with psychiatric co-morbidities. We present a case of Irritable bowel syndrome in a patient suffering from major depressive disorder who recovered significantly with psychotherapy and Probiotic supplementation.

Key Words: Irritable bowel syndrome, Probiotics, Depression.

INTRODUCTION
Irritable bowel syndrome (IBS) is a functional syndrome characterized by chronic abdominal pain accompanied by altered bowel habits [1,2]. Treatment of IBS includes dietary modification, psychotherapies and medications.

CASE REPORT
A 48 year old female presented to a gastroenterologist in September 2013 complaining of frequent loose watery stools and chronic abdominal pain. She also had complaints of gas and bloating which were relieved on bowel movement. These symptoms, present for 2 months had aggravated since 2 weeks. She had identified stress and spicy restaurant food as triggers. There were no abnormal findings on physical examination and endoscopy. She was diagnosed as having IBS. Treatment for 1 year with Loperamide and Dicyclomine was not beneficial. She was referred to our hospital for psychiatric evaluation.

At psychiatric evaluation, she was diagnosed of having depression. She met the DSM – IV criteria for major depressive disorder. Psychotherapy in the form of doxepin(150 mg/day) and paroxetine(10 mg/day) was initiated. After a month, on follow up her IBS symptoms were controlled in the form of reduced frequency and severity of diarrhea and abdominal pain. The patient was thereafter started with probiotic L acidophilus 2 months later and her symptoms nearly disappeared. Presently, the patient is on routine follow up with no exacerbation of the symptoms in the past year.

CASE DISCUSSION
Irritable bowel syndrome (IBS) is a functional syndrome characterized by chronic abdominal pain accompanied by altered bowel habits (1,2). IBS is a painful condition associated with significant psychological distress and psychiatric comorbidities, like higher levels of anxiety or depression and suicidal ideation, with negative impact on quality of life(2,3).Because there are no signs to definitively diagnose IBS, diagnosis is often a process of ruling out other conditions. The Rome III committee proposed the Rome III criteria in 2006(4) for the diagnosis of IBS, as shown in table 1.

Rome III diagnostic criteria* for irritable bowel Syndrome:
Recurrent abdominal pain or discomfort_ at least 3 days a month in the past 3 months, associated with two or more of the following:
- Improvement with defecation
- Onset associated with a change in frequency of stool

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- Onset associated with a change in form (appearance) of stool
*Criteria fulfilled for the past 3 months with symptom onset at least 6 months before diagnosis.

``Discomfort’’ means an uncomfortable sensation not described as pain.

IBS can be subtyped into categories based on the main bowel habit: IBS with constipation (IBS-C), IBS with diarrhea (IBS-D), mixed IBS (IBS-M), and unsubtyped IBS (IBS-U) (4).

The etiology of this syndrome is multifactorial and has been attributed to dysregulation of the brain-gut axis, HPA axis, altered gastrointestinal motility, visceral hypersensitivity, infectious factors, enhanced immunological reactivity, genetic susceptibility and psychosocial factors. Communication between central nervous system and enteric nervous system implies a bidirectional connection system: The symptoms may be caused by dysfunctions either primarily in the central nervous system, or in the gut, or by a combination of both (5-8).

Evidence also suggests that microflora from patients with IBS may differ quantitatively from those who do not have the syndrome. Balsari et al reported a significant decrease in the number of coliforms, lactobacilli, and, to a lesser extent, bifidobacteria in patients with IBS compared to controls(9). A trial conducted by Saggioro looking at the combination of *L plantarum* and *Bifidobacterium breve* or *L plantarum* and *L acidophilus* showed statistically significant improvement compared to placebo in a group of IBS patients(10). Thus, the role of probiotics in the treatment of IBS may also offer benefits.

One of the most diagnosed psychiatric disturbances in IBS patients is depression(11). Females with IBS have abnormal increased tryptophan degradation along the kynurenine pathway due to upregulation by proinflammatory cytokines. The rapid degradation of tryptophan depletes tryptophan and serotonin and produces toxic metabolites. This mechanisms could represent a possible biological basis for the high co-morbidity between IBS and depressive and anxiety disorders (12,13). Thus, psychiatric evaluation is a must in IBS patients. Our patient suffered from major depressive disorder for which she was prescribed doxepin and paroxetine.

Thus, for diagnosing IBS a complete history of the patient, assessment of previous consultations, screening for depression and assessing psychosocial factors, and ruling out other pathologies of the GI tract by appropriate investigations is a must.

Treatment should be safe and proportionate. A proper diet is a must with high fibre content. Psychotherapy in patients with depression or anxiety should be carefully chosen. Rest of the treatment is symptomatic. Antispasmodics for pain and loperamide for diarrhea. Clearly, more studies are needed, and at present, the use of probiotics in the treatment of IBS remains empirical. The therapy is safe and relatively inexpensive. In our case, the patient responded significantly after probiotic supplementation.

CONCLUSION
Thus, IBS is a multi-factorial disorder whose diagnosis needs special attention. The psychological association should always be kept in mind while dealing with such patients. Psychotherapy should be a part of its treatment in patients affected with psychiatric disorders. Probiotic supplementation can be an important part of therapy in certain individuals with IBS.

REFERENCES
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