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Case Report

Irritable Bowel Syndrome-Running from Pillar to Post with No Cure: A Case Study of a Retired Spinster's Experience for Community at Large

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Abstract

Irritable bowel syndrome (IBS) is a disorder affecting commonly the large intestine, and manifests as stomach-ache, gaseous distension of the abdomen, often diarrhoea, and sometimes constipation. The diagnosis is generally made on presenting symptoms and excluding other known causes of such symptoms. Some people can win over their symptoms by diet alteration, lifestyle changes, and minimizing stress situations. Severe symptoms are treated with medication and counselling.

I present one such case of a professionally busy spinster lady complaining of pain in epigastric region of the abdomen, gaseous distension, frequent diarrhoea and constipation episodes and uneasiness starting in April 2020. The problem starts after she retires in 2018 from a remarkably busy schedule of heading a government Polytechnic after 30 odd years of services. Her work culture changes and gets more leisure time, not able to keep herself busy and being a spinster not much of family support. After multiple consultations in a northern district of Karnataka she lands in Bengaluru for detailed check-up and confirmation of diagnosis and treatment plan. Ruling out all-possible causes of the symptoms, through battery of investigations, endoscopy, Colonoscopy, CT Scan of abdomen and Pelvis, echocardiography, KFT, LFT, etc a final diagnosis of IBS is arrived at and under observation for over a month

Keywords: *Dyspepsia; Non-ulcer dyspepsia (NUD); Irritable Bowel Syndrome (IBS)*

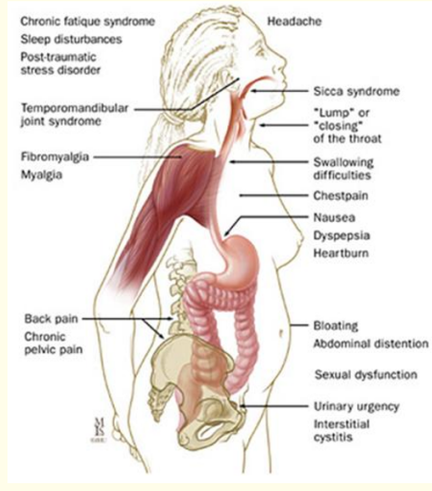

Figure 1

Introduction

Irritable bowel syndrome (IBS) is a disorder affecting commonly the large intestine, and manifests as stomach-ache, gaseous distension of the abdomen, often diarrhoea, and sometimes constipation. The cause is not well understood today. Some people use the words of Spastic colon to describe this increase in spontaneous contractions of muscles in the small and large intestines, but since there are several reasons for IBS symptoms, many others disagree to use such words. The diagnosis can be made on symptoms, but specialists these days prefer diagnosing excluding other known causes of such symptoms. Some people can win over their symptoms by diet alteration, lifestyle changes, and minimizing stress situations. Others will need medication and counselling. Most often the treatment helps in relieving symptoms, but this condition is rarely cured for ever.

The prevalence of Irritable Bowel Syndrome (IBS) is about 15% of the population and usually occurs in the age group of 15 - 50, but no age is a bar. Its characteristic features include intermittent episodes of pain or cramps in the abdomen and changes in bowel patterns either as diarrhoea or constipation. The intensity of the symptoms differs depending upon individual tolerance. Sometimes one may experience severe pain prompting to take a day off from work and some other times it may not be that bad [1]. More than 1 million cases per year are reported in India. It is estimated that IBS forms about 5% of general practitioner's patients, 10% of qualified physicians clients and 50% of Gastroenterology practitioners case load [2].

Individuals who have a persistent change in bowel movements, especially diarrhoea at night or any other signs or symptoms of IBS combined with progressive weight loss, rectal bleeding, progressive pallor, unexplained vomiting, difficulty swallowing and abdominal discomfort or pain that is not relieved by passing gas, or a bowel movement should seek consultation of a Gastroenterologist. Diagnosing IBS based only on the symptoms is becoming obsolete because the symptoms of IBS overlap with many other conditions [1,2,6]. Therefore, almost every gastroenterologist invariably puts every patient through a detailed history taking, physical examination, Lab tests, imaging, endoscopy, Colonoscopy that may take weeks to arrive at the diagnosis of IBS after excluding all possible pathological conditions. Very often the whole process may appear cumbersome, especially as the tests after tests come normal but as of now there is no short cut. In the meantime, more-severe symptoms are treated with medication and counselling.

Some studies have reported that IBS is more common in women especially IBS with constipation to be significantly more prevalent among women than men. They explain by the hypothesis of sex hormones and gender differences playing important roles in the pathophysiology of IBS [7]. There also other studies who did not find gender difference.

I present one such case in a spinster of 62 years, that took almost a year to clinch the diagnosis and consultation with a general practitioner, a physician and 2 gastroenterologists but outcome is still not satisfactory. The purpose of this case report is to describe the frustration one goes through for diagnosis and ends with a response that there is no cure for it and may have to suffer for life long with intermittent remissions and recurrences.

Case in Study

A spinster aged 63 years reported for a second opinion to one of the popular gastroenterology Center -Karnataka Gastro Center, a super speciality Center for Digestive, liver, Pancreatic diseases, and Therapeutic Endoscopy Centre in Bengaluru on 31 March 2021 with the complaints of pain in upper abdomen radiating to back, burning sensation, gaseous distance, cramping and belching since year. The medical history and physical examination did not reveal anything significant. A provisional diagnosis of Dyspepsia or IBS was made and prescribed Tab NEXPRO 40 mg (Torrent Pharma an antacid given to treat acid reflux disease, ulcers, and increased acid production) one tablet before food, Tablet COLOSPA X (antispasmodic used to treat IBS) One tablet after food and Tablet Cyclopam (a combination of

dicyclomine and paracetamol) SOS if pain in abdomen recurs for 3o days. investigations advised were TSH, HbeAb, IgM anti-HBC, Serum Creatinine, CECT of Abdomen and Pelvis, Endoscopy, Colonoscopy.

Second opinion was considered necessary as despite a local gastroenterologist's battery of investigations and therapy since December 2020 had not relieved the suffering once a course of the treatment ended. She had a recurrent episode of acute abdominal pain and increased bowel movements on 29 January 2021, consulted again an internal medicine specialist who prescribed some similar drug combination and wanted to repeat all the test like Echocardiography, ECG etc done on 21 December 2020. The drugs did give temporary relief all the time. Earlier in 2020 she Had consulted family physician, an internal medicine specialist and a gastroenterologist over the past one year. All of them prescribe antacids, anti-helminthics, anti-cholinergic, antibiotics etc giving periods of relief and recurrences. Endoscopy done on 18 November 2020 had indicated Normal upper GI study. Another set of investigations on 21/12/2020 like 1) An ultrasound done had revealed pericholecystic oedema 2. Echo- Doppler Test had had shown mild Left ventricular dysfunction 3) battery of immunohematology, Haematology, Blood biochemistry, KFT, LFT, Lipid profile, clinical pathology of urine had revealed nothing significant to contribute to the diagnosis abdominal discomfort, though moderate microcytic hypochromic Anaemia & relative lymphocytosis.

Investigations:

1. CECT done on 02 April 2021 gave an impression of Normal CT of Abdomen and Pelvis.
2. Creatinine- 0.66 mg/dl (Normal range for 60 - 90 Female- 0.6 - 1.2 mg/dl) on 02/04/21.
3. Endoscopy on 08/04/21, Fundus and Body of stomach showed few polyps 5x5 mm (taken for Histopathology) Gastric Polyps Fundic gland Polyp?
4. Colonoscopy on 08/04/2021- Colonic Diverticulae (as Transverse colon showed incidental diverticulae.
5. Histopathology of polyps: Features suggestive of benign fundic gland polyp with microcyst formation.
6. Final Diagnosis on 20/04/2021: DYSPEPSIA/IBS
7. Was asked to complete the course of 30 days from 20/04/21 drug regimen:

a. Tab Nexpro 40 mg One tablet before food in the morning

b. Tab Colospa Retard 1 One tablet before food,

c. Tab Colospa X 1 One tablet after food

d. Tab Cyclopam 1 SOS as needed.

8. To review on 20 May 2021.

Discussions

Observed digestive motor disturbances and micro-inflammation of the gut, are attributed to an imbalance of the intestinal bio-flora. That in turn is influenced by disturbances in the regulation of the brain-gut neuronic pathways that interact with visceral hypersensitivity

and result in the various discrepancies. The IBS Symptoms manifest in different varieties as time elapses, worsen during flares, and affect mental health of the patient and in turn his/her quality of life. In the absence of alarming signs, it is better if the diagnosis of IBS can be made, based on clinical symptoms. One of the common diagnostic tools used is called "Rome foundation" criteria. The latest version of the tool being Rome III criteria that considers (a) recurrent abdominal pain or discomfort for at least 3 days per month during the last 3 months and two or more of the ensuing onsets at least 6 months before diagnosis: (b) defecation, improving the symptoms (c) Beginning with a change in the frequency of stools and a change in form or appearance of stools [3]. This case fits into all these criteria.

Existing evidence do not establish any definite cause/s of IBS, but factors playing role in it are [4]:

1. **Muscle contractions in the intestine**: The walls of the intestines are lined with layers of muscle that contract to move food through our digestive tract. Such contractions whenever are stronger and last longer than normal cause gas, bloating and diarrhoea. Same intestinal contractions when weak, slow food passage and lead to hard, dry stools and constipation.

2. **Nervous system:** Poor neuro-muscular coordination between the brain and the intestines causes our body to overreact to changes in the digestive process, producing pain, flatulence, diarrhoea, or constipation.

3. **Severe infection:** Commonly occurring severe bout of gastroenteritis caused by bacteria or a virus or bacterial overgrowth like cholera, typhoid, dysentery in developing countries with poor personal and food hygiene standards are succeeded by IBS.

4. **Early life stress:** Single parent childhood, lack of early childhood education, remaining unmarried exposed some people to stressful events, tend to influence more symptoms. It is said that Stress may aggravate symptoms, but it does not cause them.

5. **Changes in gut microbes:** Some useful bacteria, fungi, and viruses, normally reside in our intestines playing a key role in health. In some people they might differ or change in some circumstances to disturb health of the people.

6. **Food:** Many people give history of worsening IBS symptoms after eating or drinking certain foods or beverages. We do know that wheat, dairy products, citrus fruits, beans, cabbage, milk, and carbonated drinks do not suit some people. However, a true food allergy rarely causes IBS.

People under the age 50, females under oestrogen therapy before or after menopause, a non-conducive family environment (as in our case) or a combination of genes and environment are more prone to IBS. Individuals suffering from anxiety, depression, or other mental health issues, history of sexual, physical, or emotional abuse are also at higher risk of getting IBS [7]. IBS and mood disorders complement each other. The case under discussion fits into the category of stressful, lonely feeling mood variations influencing the symptoms and signs.

In an Irritable bowel syndrome (IBS) in India, Bangladesh and Malaysia cases were seen both in the clinics and in the community. This study reported a significant impact on patients' quality of life and resultant effects on the family, neighbourhood, and community they live in. Large proportion of the population living in rural areas; rapid urbanization with associated lifestyle changes; and dietary, cultural, and religious practices are some of the common features influencing IBS in these countries. A higher dietary fiber consumption, parasitic infections, lactose malabsorption and overlap between post-infectious IBS and tropical sprue in the rural population have been cited as the cause of IBS [4].

Ref.	Study site	Sample size	Study type	Criteria	Prevalence	M:F ratio
Shah., *et al*.	U-Mumbai,	2549	C/HS	Manning	7.5%	1/0.87
Ghoshal., *et al*.	Multiple sites	4500	C	Clinical	4.2%	1/0.93
Makharia., *et al*.	R.Harvani	4767	C	Rome III	4%	1/1.5
Ghoshal., *et al*.	RUttar Pradesh,	2876	C	Rome III	6.8%	1/1.09
Masud., *et al*.	RNatore, B Desh	2426	C	Rome I	8.5%	1/1.84
Perveen., *et al*.	U Dhaka, BD	1503	C	Rome II	7.7%	1/1.28
Perveen., *et al*.	U&R Sylthet, BD	3000	C	Rome III	12.9%	1/1.09
Rajendra., *et al*.	U Malaysia	1179	C	Rome II	14%	1/1.4
Lee., *et al*.	R Malaysia		C	Rome III	10.9%	1/1.18

Table 1: *Prevalence of irritable bowel syndrome in India, Bangladesh, and Malaysia.*

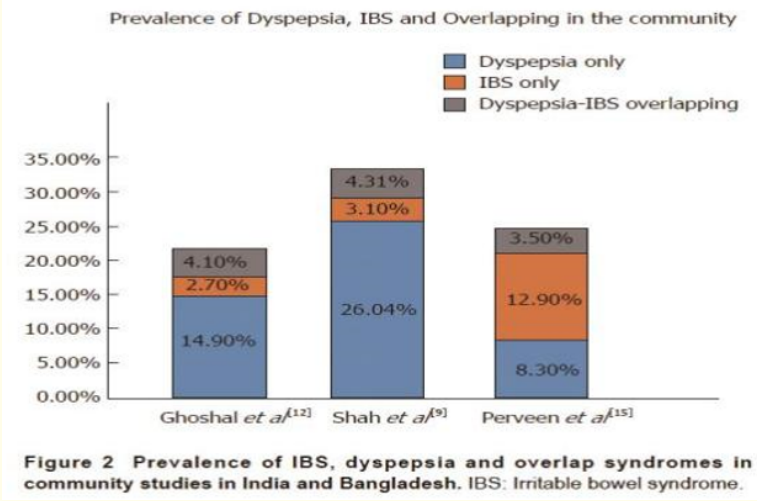

Figure 2 Prevalence of IBS, dyspepsia and overlap syndromes in community studies in India and Bangladesh. IBS: Irritable bowel syndrome.

Figure 2

A survey in three villages of Uttar Pradesh, India has reported an IBS prevalence of 4.2% (Rome III criteria) among 2774 subjects, and 4% in another northern Indian study [10]. Another study among 2549 randomly selected subjects in urban Mumbai, India has reported using the Manning criteria a prevalence of 7.7% IBS [11].

Pathophysiological insights

According to the current evidence pathogenesis of IBS is multi-dimensional. It includes gut microbial biological disturbances, small intestinal bacterial overgrowth (SIBO), visceral hypersensitivity, intestinal mucosal immune activation, dietary intolerance, increased intestinal permeability, abnormal Gastrointestinal and brain interaction. This leads to cognitive dysfunction, psychosocial distress and

altered GI motility. An Indian case-control study of 221 IBS patients and 273 age and sex-matched controls, reported an interleukin (IL)-1 receptor antagonist association and its over-producer to be protective. The higher levels of IL-1α and IL-1β found in patients with SIBO, and IL-1α and IL-1β of IBS were associated with bloating and loose stools, pointing towards the role of inflammation in the pathogenesis of IBS in general and diarrhoea-predominant IBS in particular [2].

A Rome III criterion further classifies IBS based on predominance of symptoms as constipation predominant, diarrhoea predominant, mixed, and unspecified. The mean age of 4,767 participants was 34.6 ± 10.8. Overall, 555 (11.6%) had constipation, 542 (11.4) had diarrhoea and 823 (17.3%) had abdominal pain. The overall prevalence of IBS was 4%. The prevalence of constipation predominant IBS was 0.3%, diarrhoea predominant IBS 1.5%, mixed IBS 1.7% and un-subtyped IBS 0.5%. The prevalence was significantly higher in females than males 4.8% vs 3.2%, (P = 0.008). However, the prevalence of different subtypes of IBS was similar among males and females. The prevalence increased with age. Study inferred that IBS poses a significant burden on the adults [3].

A unique coincidence is that Ghoshal's study also reporting a higher incidence of diarrhoea predominant IBS (1.5%) compared to IBS constipation (0.3%) [4]. In general, Indians tend to pass 1-2 soft stool per day, due to the higher fiber and larger helpings that hastens gut transit time. The researchers also suggest the possibility of another form of "functional bowel" or IBS existence in this sub-continent which is different from the Western world where people consume less roughage. It is also believed that Western patients tend have more "neurotic IBS" compared to the Asian patients who are more likely to suffer from "post infectious IBS." As the case reported here fits into another observation of the in-creasing prevalence of IBS with advancing age- 50 - > 60 age groups, though in India it has been noted that the prevalence of IBS is higher in the younger age group [4,5].

Women IBS patients have reported to feel more fatigue, depression, anxiety, and lower quality of life than men IBS patients may be due to associated iron deficiency anaemia, fulfilling multiple roles of managing household [7] as seen in our case despite having financial and worldly comforts, loneliness being spinster may be the cause of concern.

Another study of Premenopausal women < 45 years of age with regular menses, Postmenopausal women ≥ 45 years without menses compared with men < 45 years, and older men ≥ 45 years. Multivariable linear or logistic regressions evaluating relationships between age and sex suggests that Postmenopausal women with IBS have more severe IBS symptoms than premenopausal women, while no comparable age-related changes were seen in IBS men. The influential effect of female sex hormones on brain-gut interactions contributes to these findings [12]. Questionnaires measured severity of IBS symptoms, somatic symptoms, health-related quality of life (HRQOL), and psychological symptoms.

Conclusion

- Irritable bowel syndrome (IBS) is a common gastro-intestinal disturbance affecting the large intestine, causing stomach-ache, gaseous distension, diarrhoea and constipation.
- The cause of IBS is not well understood as of today.
- A diagnosis suspected based on symptoms and confirmed after excluding other known causes of such symptoms.
- Managing diet, lifestyle, and stress may help in relieving the symptoms in some but others will need medication and counselling.
- Gastroenterologists will rule out all other possible pathological conditions.
- A Treatment and counselling help but IBS persist for long or may not be cured at all.
- A more sex-gender-sensitive approach in the health care system can improve the understanding of heterogeneous patients suffering from IBS.

Take Home Messages

- Non-ulcer Dyspepsia/ Irritable bowel syndrome (IBS) is a common disorder.
- In the absence of alarming signs diagnosis of IBS can be made, based on clinical symptoms. But today's clinicians opt for making a diagnosis by exclusion.
- People with persistent abdominal pain, gaseous distension, alternate constipation and diarrhoea episodes, night diarrhoea and unable to manage through diet, lifestyle change, and psychological counselling should seek Gastroenterologist's care.
- Multipronged Individual attention approach is needed to improve the treatment of IBS.

Bibliography

1. Irritable Bowel Syndrome (IBS): Diet, Medication and Alternative Therapies, By Sitaram Bhartiya Team, New Delhi (2020).
2. Inter-personal communication by a long-standing experienced Gastroenterologist in Bengaluru.
3. Makharia GK., *et al*. "Prevalence of irritable bowel syndrome: A community- based study from Northern India (2011).
4. Rahman MM., *et al*. "Epidemiological and clinical perspectives on irritable bowel syndrome in India, Bangladesh, and Malaysia: A review". *World Journal of Gastroenterology* 23.37 (2017): 6788-6801.
5. Ghoshal UC., *et al*. "Epidemiological and clinical profile of irritable bowel syndrome in India: report of the Indian Society of Gastroenterology Task Force". *Indian Journal of Gastroenterology* 27 (2008): 22-28.
6. Avinash Bhat., *et al*. "Celiac Disease in Adult South Indian Patients with Diarrhoea Dominant Irritable Bowel Syndrome (2020).
7. Young Sun Kim., *et al*. "Sex-Gender Differences in Irritable Bowel Syndrome". *Journal of Neurogastroenterology and Motility* 24.4 (2018): 544-558.
8. RokSeon Choung., *et al*. "Epidemiology of IBS". *Gastroenterology Clinics of North America* 40 (2011): 1-10.
9. Andrew Seng Boon Chua. Journal of Neuro-gastroenterology and Motility Society of Gastroenterology Task Force. *Indian Journal of Gastroenterology* 27 (2008): 22-28.
10. Srivastava D., *et al*. "Associations between IL-1RA polymorphisms and small intestinal bacterial overgrowth among patients with irritable bowel syndrome from India". *Neurogastroenterology and Motility* 26 (2014): 1408-1416.
11. A Blasi., *et al*. "Non-ulcer dyspepsia". *Annali Italiani di Medicina Interna* 6.4-2 (1991): 470-475.
12. A Lenhart., *et al*. "Postmenopausal women with irritable bowel syndrome (IBS) have more severe symptoms than premenopausal women with IBS". *Neurogastroenterology and Motility* 32.10 (2020).

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