Frequency of different clinical presentations/ symptoms of irritable bowel syndrome in patients presenting to the outpatient department of lady reading hospital Peshawar

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Abstract---In the absence of any structural aetiology, irritable bowel syndrome is a condition of gastrointestinal motility and sensation that is defined by persistent abdominal pain and irregular bowel movements. It is the communal reasons for gastroenterology consultations. Therefore, knowledge of the relative frequency of these symptoms in our population will enable healthcare practitioners to tailor their management to the symptom patterns of our population.

Objective: To determine the frequency of different clinical presentations/symptoms (frequent stools, looser stools, infrequent stools, harder stools, abdominal pain) of irritable bowel syndrome in patients presenting to the outpatient department of Lady Reading Hospital, Peshawar. Place and Duration: In Gastroenterology outpatient department of Lady Reading Hospital, Peshawar for six months duration from 25th June, 2019 to 25th December, 2019. Study Design: A Cross-sectional Study. Methods: In this study a total 192 patients were observed. The patients were given a questionnaire containing questions about their clinical presentation including present and past symptoms. These questions were including details of how frequently they need to pass stools, consistency/form of stools (graded according to Bristol Stool Chart) as well as presence or absence of pain. Moreover, visual assessment of their stools shall also be performed to grade their stools according to Bristol Stool Chart. Results: This analysis shows that among 192 patients, mean age was 33 years ± 8.77. The males were 55% and female were 45%. Various clinical presentations were as follows; more frequent stools was 72%, looser stools were 63%, infrequent stools were 5%, harder stools 18% and abdominal pain was 86% in patients presenting with irritable bowel syndrome. Conclusion: This analysis shows that the occurrence of different clinical presentations/symptoms i.e. more frequent stools was 72%, looser stools was 63%, infrequent stools was 5%, harder stools 18% and abdominal pain was 86% in patients presenting with irritable bowel syndrome.

Keywords---clinical presentations, frequent stools, looser stools, infrequent stools, harder stools, abdominal pain.

Introduction

In the absence of any structural aetiology, irritable bowel syndrome is a condition of gastrointestinal motility and sensation that is defined by persistent abdominal pain and irregular bowel movements. It is the communal reasons for gastroenterology consultations[1-2]. It is the most common cause for gastroenterology consultations. Although it is not a serious or life-threatening disease, it still causes considerable patient discomfort and decreased quality of life. It is one of the most frequent reasons for visit to healthcare practitioners and therefore has a large economic impact on healthcare services due to the cost of consultation and investigations[3-4]. Not only does it affect the patient but it also leads to considerable burden on the partners and families of the patient. Irritable bowel syndrome is defined operationally for the purpose of research studies on the basis of Rome IV criteria. The pathophysiology of the disease is complex and involves changes in the intestinal permeability, psychosocial status, gut microbiome, motility, gut immune function, brain-gut interactions and visceral sensation. There is a significant association of stress with irritable bowel syndrome and it is clearly documented that IBS is related with increase pervasiveness of psychological disorders[5-6].

The diversity and complexity of irritable bowel syndrome's (IBS) signs and symptoms make it difficult to treat. There is a lot of heterogeneity in the patient's clinical symptoms but the disease mainly presents as one of the three predominant subtypes: (i) IBS with diarrhoea (IBS-D) (ii) IBS with constipation (IBS-C) and (iii) mixed IBS (IBS-M); former ROME definitions confers to IBS-M as alternate to IBS (IBS-A)[7-8]. The utmost stressful symptoms described by the patients include straining, abdominal pain, urgency, myalgias, feelings of serious illness and bloating[9-10].

This study aims to find out how frequent the different irritable bowel syndrome symptoms in our local population suffering from this disease. This is important because patients presenting with different symptoms are managed differently. This is important because patients presenting with different symptoms are managed differently. Therefore, knowledge of the relative frequency of these symptoms in our population will enable healthcare practitioners to tailor their management to the symptom patterns of our population.

Methods

This Cross-sectional study was held in the Gastroenterology outpatient department of Lady Reading Hospital, Peshawar for six months duration from 25th June, 2019 to 25th December, 2019. Sample size was 192 selected by Non-probability consecutive sampling technique. It was calculated using the WHO software "Sample Size Determination in Health Studies".

Inclusion Criteria

15 to 40 years old patients of both genders who meet the operational definition of irritable bowel syndrome and have the disease for duration of at least 3 months.

Exclusion Criteria

- Patients with any known organic illness (e.g. inflammatory bowel disease, malabsorption syndromes, peptic ulcer disease, gastrointestinal malignancy).
- Patients with symptoms of less than three months duration.

The hospital's ethics and scientific committee gave its clearance before the study could be carried out. After obtaining written informed consent, patients who met the inclusion criteria at the gastrointestinal outpatient clinic at Lady Reading Hospital in Peshawar were enrolled in the study. Based on the criteria listed in the aforementioned operational definitions, irritable bowel syndrome was diagnosed. The study purpose was clarified clearly to all the recruited patients. They were also be informed about how they were managed for their irritable bowel syndrome (they were receive the routine management for the disease which was the usual standard of care in such patients). The patients were given a questionnaire containing questions about their clinical presentation including present and past symptoms. These questions were include details of how frequently they need to pass stools, consistency/form of stools (graded according to Bristol Stool Chart) as well as

presence or absence of pain. Moreover, visual assessment of their stools shall also be performed to grade their stools according to Bristol Stool Chart.

The data was analysed with SPSS 23.0. The percentages and frequencies were used to define categorical variables such as gender and presence/absence of different symptoms (loose stools, more frequent stools, harder stools, infrequent stools, abdominal pain). 95 percent confidence intervals shall be calculated for the frequency of all the symptoms. The S.D and mean was determined for the numerical variables for example age. The symptoms of irritable bowel syndrome were stratified according to gender and different age groups. Using the post-stratification chi-squared test, a p value of 0.05 was deemed significant. Tables and graphs were used to present all of the results.

Results

In the current study age distribution among 192 patients was analyzed as 117(61%) patients were 18-30 years of age while 75(39%) patients were 31-40 years old. 33 years ± 8.77 was the mean age of patients. (table no 1).

Table I
Shows the patients distribution with reference to age-groups

Age	FREQUENCY	PERCENTAGE
18-30 years	117	61%
31-40 years	75	39%
Total	192	100%

Among 192 patients was analyzed 106(55%) patients were men while 86(45%) patients were women. (table no 2).

Table II
Shows the patients distribution with reference to Gender

GENDER	FREQUENCY	PERCENTAGE
Male	106	55%
Female	86	45%
Total	192	100%

Various clinical presentation among 192 patients was analyzed 121(63%) patients had loose stools, 138(72%) patients had frequent stools, 35(18%) patients had hard stools, 10(5%) patients had infrequent stools, 165(86%) patients had abdominal pain. table no 3).

Table III
Shows the various clinical presentation of patients

CLINICAL PRESENTATION	FREQUENCY	PERCENTAGE

Loose stools	121	63%	
More frequent stools	138	72%	
Hard stools	35	18%	
infrequent stools	10	5%	
abdominal pain	165	86%	

Stratification of difference clinical presentation with respect to age and gender is given in table no 4,5.

Table IV
Shows the various clinical presentation of patients with reference to age-groups

CLINICAL PRESENTATION		18-30 years	31-40 years	Total	P value
Loose stools	Yes	74	47	121	0.9351
	No	43	28	71	
Total		117	75	192	
More frequent stools	Yes	84	54	138	0.9753
	No	33	21	54	
Total		117	75	192	
Hard stools	Yes	21	14	35	0.8999
	No	96	61	157	
Total		117	75	192	
Infrequent stools	Yes	6	4	10	0.9502
	No	111	71	182	
		117	75	192	
Abdominal pain	Yes	101	64	165	0.8471
	No	16	11	27	
Total		117	75	192	

Table V
Shows the various clinical presentation of patients with reference to Gender

CLINICAL PRESENTATION		Male	Female	Total	P value
Loose stools	Yes	67	54	121	0.9525
	No	39	32	71	
Total		106	86	192	
More frequent stools	Yes	76	62	138	0.9517
	No	30	24	54	
Total		106	86	192	
Hard stools	Yes	19	16	35	0.9033
	No	87	70	157	
Total		106	86	192	
Infrequent stools	Yes	6	4	10	0.7543
	No	100	82	182	
		106	86	192	

Abdominal pain	Yes	91	74	165	0.9687
	No	15	12	27	
Total		106	86	192	

Discussion

In the absence of any structural aetiology, irritable bowel syndrome is a condition of gastrointestinal motility and sensation that is defined by persistent abdominal pain and irregular bowel movements. It is the communal reasons for gastroenterology consultations[11-12]. It is the most common cause for gastroenterology consultations. Although it is not a serious or life-threatening disease, it still causes considerable patient discomfort and decreased quality of life. It is one of the most frequent reasons for visit to healthcare practitioners and therefore has a large economic impact on healthcare services due to the cost of consultation and investigations. Not only does it affect the patient but it also leads to considerable burden on the partners and families of the patient[13-14].

This analysis shows that among 192 patients, mean age was 33 years ± 8.77. The males were 55% and female were 45%. Various clinical presentations were as follows i.e. more frequent stools was 72%, looser stools were 63%, infrequent stools were 5%, harder stools 18% and abdominal pain was 86% in patients presenting with irritable bowel syndrome. Manning AP et al show comparable results in which difference clinical presentation in patients presenting with irritable bowel syndrome were more frequent stools was 74.19%, looser stools were 80.64%, infrequent stools were 3.22%, harder stools 3.22% and abdominal pain was 82%[15-16]. Comparable outcomes were observed in another Khokhar N et al study in which there were 292 patients in total, with 156 (53.4%) males and 136 (46.6%) females Mean age was 40.44 ± 13.69 years, 164.3 ± 8.95 cm was the mean height and 64.83 ± 12.31 kg was the mean weight[17-18]. These features did not exhibit significant differences in study population. The bloating and abdominal pain were noted to be present in early all the male and female patients which occur in different times and which was the part of the diagnostic criteria[19-20]. Constipation was found in 116 of 136 females (79.9%) and 119 of 156 males (69.8%), frequent stools were 76%, looser stools were 61%, infrequent stools were 7%, harder stools 20% abdominal pain was 84%, Diarrhea and both constipation and diarrhea were also noted in significant number of patients[21-23]. Twenty eight out of 136 women (20.6%). Naeem SS et al study shows the same results in which mean age was 45 years ± 10.12 and male were fifty seven percent and female were 43%[24-25].

Conclusion

This analysis shows that the occurrence of different clinical presentations/symptoms i.e. more frequent stools was 72%, looser stools was 63%, infrequent stools was 5%, harder stools 18% and abdominal pain was 86% in patients presenting with irritable bowel syndrome.

References

1. American College of Gastroenterology Functional Gastrointestinal Disorders Task Force. Evidence-based position statement on the management of irritable bowel syndrome in North America. Am J Gastroenterol. 2002;97(11 suppl):S1–5.
2. Barbara G, De Giorgio R, Stanghellini V, Cremon C, Salvioli B, Corinaldesi R. New pathophysiological mechanisms in irritable bowel syndrome. Aliment PharmacolTher. 2009;20(Suppl 2):1–9.
3. Bercik P, Verdu EF, Collins SM. Is irritable bowel syndrome a low-grade inflammatory bowel disease?. Gastroenterol Clin North Am. Jun 2005;34(2):235-45.
4. Canavan C, West J, Card T. The epidemiology of irritable bowel syndrome. Clin Epidemiol. 2014;6:71.
5. Chey WD, Kurlander J, Eswaran S. Irritable bowel syndrome: a clinical review. JAMA. 2015;313(9):949-58.
6. Fond G, Loundou A, Hamdani N, Boukouaci W, Dargel A, Oliveira J et al. Anxiety and depression comorbidities in irritable bowel syndrome (IBS): a systematic review and meta-analysis. Eur Arch Psychiatry Clin Neurosci. 2014;264(8):651-60.
7. Ghoshal UC, Abraham P, Bhatt C. Epidemiological and clinical profile of irritable bowel syndrome in India: report of the Indian Society of Gastroenterology Task Force. Indian J Gastroenterol. 2008;27:22-8.
8. Jafri W, Yakoob J, Jafri N, Islam M, Ali QM. Frequency ofirritable bowel syndrome in college students.J Ayub Med Coll. 2005;17(4):9–11.
9. Jafri W, Yakoob J, Jafri N, Islam M, Ali QM. Irritable bowel syndrome and health seeking behavior in different communities of Pakistan. J Pak Med Assoc.2007;57(6):285–7.
10. Jolley J. High-dose rifaximin treatment alleviates global symptoms of irritable bowel syndrome. ClinExpGastroenterol. 2011;4:43–8.
11. Krogius-Kurikka L, Lyra A, Malinen E. Microbial community analysis reveals high level phylogenetic alterations in the overall gastrointestinal microbiota of diarrhoea-predominant irritable bowel syndrome sufferers. BMC Gastroenterol. 2009;9:95.
12. Majewski M, Reddymasu S, Sostarich S, Foran P, McCallum R. Efficacy of rifaximin, a nonabsorbed oral antibiotic, in the treatment of small intestinal bacterial overgrowth. AmJ Med Sci.2007;333:266–70.
13. Manning AP, Thompson WG, Heaton KW, Morris AF. Towards positive diagnosis of the irritable bowel. BMJ. 1978;2(6138):653-4
14. Olden KW. Irritable bowel syndrome: an overview of diagnosis and pharmacologic treatment. Cleve Clin J Med. 2003;70(suppl 2):S3–7.
15. Pimentel M, Chatterjee S, Chow EJ, Park S, Kong Y. Neomycin improves constipation-predominant irritable bowel syndrome in a fashion that is dependent on the presence of methane gas: Sub analysis of a double-blind randomized controlled study. Dig Dis Sci. 2010; 51(8):1297–301.
16. Pimentel M, Chow EJ, Lin HC. Eradication of small intestinal bacterial overgrowth reduces symptoms of irritable bowel syndrome. Am J Gastroenterol. 2010;95(12):3503–6.
17. Pimentel M, Chow EJ, Lin HC. Normalization of lactulose breath testing correlates with symptom improvement in irritable bowel syndrome: A double-

blind, randomized, placebo-controlled study. Am J Gastroenterol. 2008;98(2):412–9.

18. Pimentel M., Lembo A., Chey W., Zakko S., Ringel Y., Yu J., et al. TARGET Study Group Rifaximin therapy for patients with irritable bowel syndrome without constipation. NEngl J Med. 2011;364:22–32.

19. Schoepfer A. Rifaximin treatment for the irritable bowel syndrome with a positive lactulose hydrogen breath test improves symptoms for at least 3 months. Aliment PharmacolTher.2012;36(11):1084–93.

20. Simren M, Palsson OS, Whitehead WE. Update on Rome IV criteria for colorectal disorders: implications for clinical practice. Curr Gastroenterol Rep. 2017;19(4):15

21. Spiegel BM, Farid M, Esrailian E, Talley J, Chang L. Is irritable bowel syndrome a diagnosis of exclusion?: a survey of primary care providers, gastroenterologists, and IBS experts. Am J Gastroenterol. Apr 2010;105(4):848-58.

22. Tana C, Umesaki Y, Imaoka A, Handa T, Kanazawa M, Fukudo S. Altered profiles of intestinal microbiota and organic acids may be the origin of symptoms in irritable bowel syndrome. NeurogastroenterolMotil. 2010;22(5):512–9.

23. Thompson WG, Longstreth GF, Drossman DA, Heaton KW, Irvine EJ, Müller-Lissner SA. Functional bowel disorders and functional abdominal pain. Gut. 1999;45:43–7.

24. Wong RK, Drossman DA, Weinland SR, Morris CB, Leserman J, Hu Y, et al. Partner burden in irritable bowel syndrome. Clinical Gastroenterology and Hepatology. 2013;11(2):151-5..

25. Yang J, Lee HR, Low K, Chatterjee S, Pimentel M. Rifaximin versus other antibiotics in the primary treatment and retreatment of bacterial overgrowth in IBS. Dig Dis Sci. 2008;53(1):169–74.