INTRODUCTION

Irritable bowel syndrome (IBS) is a functional gastrointestinal (GI) disorder characterized by abdominal pain and altered bowel habits in the absence of a specific and unique organic pathology. In modern GI practice approximately one third of patients have functional bowel disorder and most of them have IBS [1]. IBS is an important disease entity as it has high prevalence, substantial morbidity and treatment costs enormously to the patient [2]. All over the world nearly 11.2% people are affected by this condition [3]. In United States of America, approximately 12% of patients seen by physicians have IBS [4]. The condition is commoner in South America than in Southeast Asia [5]. It is twice as common in women as in men. In India, the prevalence of IBS is 4% and males represent 70-80% of patients with irritable bowel syndrome [6]. There are subsets of functional bowel disease patients harbouring organic disease, so their diagnosis relies on thorough history, clinical examination and absence of red flag signs which includes weight loss, rectal bleed and anaemia. To overcome this, Manning criteria was devised for diagnosis of IBS in 1978. With refinement in due course, Rome criteria was introduced to exclude organic disease. These diagnostic criteria were supported by various studies and long term follow up of patients with these symptoms. Among the patients meeting the diagnostic criteria for IBS the pre-test probability for...
inflammatory bowel disease, colorectal malignancy and infectious diarrhoea is less than 1% [7].

Aim
To study the Clinical profile of irritable bowel syndrome patients at tertiary care centre in North India

MATERIALS AND METHODS
It was a cross sectional prospective study carried out at Indraprastha Apollo hospital, New Delhi over 2 years from April 2014 to March 2016. Ethical clearance was obtained according to the declaration of Helsinki from the Institute’s ethical committee. Prior informed consent was obtained from the patients before including them in the study. Patients between the age of 15 years to 70 years meeting Rome III criteria for irritable bowel disease were included in the study [8]. Patients with IBS having alarming signs (anaemia, weight loss, fever & abdominal mass), inflammatory bowel disease, diarrhoea due to organic causes, lactose intolerance and patients unwilling for upper gastrointestinal endoscopy or colonoscopy (if deemed necessary by the physician) were excluded from the study. Based on the Bristol stool charting and history, patients with IBS were further classified as follows: (i) constipation-predominant IBS (IBS-C) if they had hard or lumpy stools with no loose, watery mushy or watery stools in the previous three months (Bristol stool – type 1 and type 2); (ii) diarrhea-predominant IBS (IBS-D) if they had loose, mushy or water stools in the previous three months with no hard or lumpy stools (Bristol stool – type 6 and type 7); and (iii) mixed IBS (IBS-M) if they had both loose and hard stools in the previous three months (Bristol Stool – type 2 and type 6).

Sample size was calculated using the formula \(\frac{Z^2 \times p \times q}{d^2}\), when the estimated prevalence of celiac disease in IBS patients (p) was 4% (varies from 0.4% -11.4% in previous studies), precision error of estimation \(d\) = 0.01, and alpha = 0.05, a sample size of at least 1120 cases were needed to estimate the prevalence [9-13]. Since the study was time bound, all consecutive patients meeting the eligibility criteria during the study period were enrolled. Total of 251 Irritable Bowel Syndrome patients were recruited in the study.

All the patients were screened by complete blood counts, thyroid function test and ultrasound abdomen. IgA anti tTG was done to rule out celiac disease

Esophago gastro duodenedoscopy (EGD) & Colonoscopy
All 251 patients underwent EGD. Of these patients 124 (49.4%) had gastritis, 78 patients (31.07%) had Gastroesophageal reflux disease (GERD) and remaining 49 patients (19.5%) had normal EGD findings.

Colonoscopy was done in 145 patients. Out of these 145 patients, 39 (26.89%) patients had haemorrhoids, 1 patient (0.68%) had melanosis coli and 105 patients (72.41%) had normal colonoscopy findings.

RESULTS
Total of 251 patients of IBS were included during the study period. All the patients were diagnosed cases of IBS on ROME III criteria. The mean age of the cohort was 41.8 ± 13.1 years. Out of 251 patients, 139 were male and 112 were female (M: F = 1.2: 1). (table -1)

IBS Subtypes
Out 251 patients, 122 patients (48.6%) were IBS-C, 103 patients (41.03%) were IBS-D and 26 patients (10.3%) were IBS-M. In both the sexes IBS-C was more common (Table 1). Male to Female ratio in IBS-C, IBS-D and IBS-M was 1.21:1, 1.23:1 and 1.36:1 respectively

Table 1: Sex distribution in subtypes of IBS

<table>
<thead>
<tr>
<th>Sex</th>
<th>IBS-C</th>
<th>Frequency/Percentage</th>
<th>IBS-D</th>
<th>Frequency/Percentage</th>
<th>IBS-M</th>
<th>Frequency/Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>55 (48.7%)</td>
<td>46 (41.1%)</td>
<td>11 (9.7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>67 (47.9%)</td>
<td>57 (41.4%)</td>
<td>15 (10.7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>122 (48.6%)</td>
<td>103 (40.3%)</td>
<td>26 (10.3%)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Esophagogastroduodenoscopy (EGD) & Colonoscopy
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Colonoscopy was done in 145 patients. Out of these 145 patients, 39 (26.89%) patients had haemorrhoids, 1 patient (0.68%) had melanosis coli and 105 patients (72.41%) had normal colonoscopy findings.
DISCUSSION

Globally IBS is twice more common in women than in men but in India, IBS is more common in men [6]. In the present study men were more commonly affected than women (M: F = 1.2:1) which is in agreement with the other study [6]. Approximately 50% of people with IBS report symptoms beginning before 35 years of age. The mean age of presentation of IBS in the present study was 41.8 years.

In the present study IBS-C was the commonest subtype of IBS noted in our study population affecting 122 (48.6%) out of 251 patients, however in the study by Makharia et al., the prevalence of constipation predominant IBS was 0.3%, diarrhea predominant IBS 1.5%, mixed IBS 1.7% and unsubttyped IBS 0.5%. So mixed IBS was more common. The prevalence of IBS was significantly higher in males compared with females which is in agreement with our study [8].

In the study published by Ghoshal et al [6] the mean age was 39.4 years while in our study it was 41.8 years. IBS was more common in males as compared to females which is in agreement with our study. Out of 1301 patients, 507 (39%) had constipation-predominant IBS (3<or= stools/week), 50 (4%) had diarrhea-predominant IBS (>3 stools/day) and 744 (57%) had indeterminate symptom. IBS-I was most common subtype. But our study IBS-C is more common. This may be due to the fact that we classified IBS sub types according to Bristol stool chart and not by frequency of stools.

In the study conducted by Lovell et al prevalence was higher for women than men this finding is contradictory to our study in which IBS is more common in males. The reason for this finding is that data taken in this study is global data which includes western countries where IBS is more common in females. Another finding of this study was IBS is more common in patients below the age of 50 years which is in agreement with our study [9].

In Study (meta analysis) conducted by Lovell et al of 390 papers evaluated, 81 reported prevalence of IBS. Thirteen of these, containing 49,939 participants, reported the proportion of individuals with Gastrooesophageal reflux symptoms. The prevalence of Gastrooesophageal reflux symptoms was 42%, In our study the prevalence of Gastrooesophageal reflux disease in IBS patients was 31.07%. [10]

In Study conducted by Helvachi MR et al on 54 IBS patients, 40 patients had gastritis, prevalence of gastritis in IBS patients was 78.4%. In Our study out of 251 patients, 124 patients had gastritis on endoscopy, prevalence of gastritis was 49.04%, which is less than Helvachi MR et al study. In the same study 17 out of 54 patients (33.3%) had haemorrhoids. In our study 39 (26.89%) patients had haemorrhoids which similar to Helvachi MR et al finding.[11]

CONCLUSION

- IBS is more common in Male patients at our centre.
- In our study IBS –C was more common than other Subtypes of IBS in both Male and Female patients at our centre.
- However as the study was time bound at sample was small, so further studies are required for validation.

References


How to cite this article:
Saad Abdul Rahman et al.2019, Clinical Profile of Irritable Bowel Syndrome Patients At Tertiary Care Centre In North India. Int J Recent Sci Res. 10(11), pp. 35983-35985. DOI: http://dx.doi.org/10.24327/ijrsrc.2019.1011.4210

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