Al-Mukhtar Journal of Sciences 33 (2): 98-103, 2018

Prevalence of Irritable Bowel Syndrome (IBS) in Lamar- Libya Primary Care General practices

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Received: 15 October 2017 / Accepted: 11 December 2017
Doi: https://doi.org/10.54172/mjsc.v33i2.113

Abstract: Irritable bowel syndrome (IBS) is a chronic or recurrent abdominal symptom. No cause can be identified using conventional diagnostic testing and it is characterized by abdominal pain or cramping and changes in bowel function. Aims of our study were to estimate the prevalence of functional bowel disorders namely C1; Irritable bowel syndrome (IBS) among clinic-based patients, and to assess health-care seeking in subjects with functional bowel disorders. The study used participants recruited from AL Marj- Libyan Red Crescent Clinic primary care general practices. Between November 2012 and December 2013, each study subject was asked according to a prepared questionnaire. This questionnaire depends on Rome III diagnostic criteria for irritable bowel syndrome. 450 consecutive patients attended the Red Crescent Clinic, 234 (52%) were female and 216 (48 %) were male. Population age ranged from 20-80 years, and the mean age was 53 years (SD+ 15.6). In our study, the prevalence of irritable bowel syndrome (IBS) is 12%, and 53.3% of the subjects had looked for medical advice for abdominal pain. There was no significant association observed between the prevalence of IBS and sex. IBS was11.9% in women and 12.1% in men. Elderly were the least frequent sufferer of IBS and the least medical advice seeker compared to younger age groups, which necessitate not overlooking organic cause in such age group. Considerable patients seek medication and traditional remedies due to their bowel disorders. Further investigations of the treatment are required because of the high financial burden for individuals as well as for the society.

Keywords: Irritable bowel syndrome, IBS, Rome III diagnostic criteria, abdominal pain or discomfort, Functional gastrointestinal disorders, (FGID).

INTRODUCTION

Functional gastrointestinal disorders (FGID) are clinical syndromes defined by chronic or recurrent abdominal symptoms. No cause can be identified using conventional diagnostic testing. They can be classified by anatomic region: esophageal (A), gastroduodenal (B), bowel (C), functional abdominal pain (D), biliary (E), and anorectal (F). Within each anatomic category site, there can be several disorders each with specific clinical features. For example, the functional bowel disorders (C), which include IBS (C1), functional abdominal bloating (C2), functional constipation (C3), and functional diarrhea (C4), are all functional bowel disorders attributed to the colon and rectum (Table 1) (Drossman, 2006). Irritable bowel syndrome (IBS) is a complex symptom characterized by abdominal discomfort or pain associated with defecation or a change in bowel habit. IBS is a common disorder with a prevalence of 15–20% in the general population and it constitutes 50% of the cases in outpatient clinics of gastroenterology. It appears that 33–90% of sufferers do not consult their clinicians, and that a proportional meeting IBS criterion is not labeled as having IBS by their clinicians. (Talley *et al.* 1992b, Mertz, 2003). IBS is not associated with the development of long-term serious disease and there is no evidence to

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link IBS to excess mortality, although it has been shown that patients with IBS are more likely to undergo certain surgical operations including hysterectomy and cholecystectomy compared to matched non-IBS controls. Health-related quality of life is poor in patients with IBS and can lead to a loss of time for work or increased health care costs (Spiller *et al.* 2007).Symptoms of Functional bowel disorder are abdominal pain or discomfort which is clearly linked to bowel function, being either relieved by defecation (suggesting a colonic origin) or associated with a change in stool frequency or consistency suggesting a link to changes in intestinal transit, which might reflect changes in either motor patterns or secretion. (Horwitz & Fisher, 2001).

Table 1: Functional bowel disorders; bowel disorders category C (Talley et al. 1999)

C1. Irritable bowel syndrome
C2. Functional abdominal bloating
C3. Functional constipation
C4. Functional diarrhea

Aims of our study were to estimate the prevalence of functional bowel disorders C1; IBS among clinic-based patients, and to assess health-care seeking in subjects with functional bowel disorders.

MATERIALS AND METHODS

The study used participants recruited from AL Marj- Libyan Red Crescent Clinic general practices. For each study subject, date of birth and sex were registered by a doctor who also asked every study subjects according to a prepared questionnaire. This questionnaire depends on Rome III diagnostic criteria for irritable bowel syndrome which was created by the Rome III committee, (Table 2), (Appendix A, 2006). The questionnaire assessed abdominal pain or discomfort in the last 12 months. Abdominal disorders when occurred, the number of episodes, and associated symptoms were assessed. These symptoms are common in IBS but not part of the diagnostic criteria namely; bloating, straining at defecation, urgency, feeling of incomplete evacuation, and the passage of mucus per rectum. Subjects were asked if pain or discomfort improved after defecation and if it was associated with altered stool habits (more or less bowel movements, harder or looser stools). History of follow up with a doctor or alternative medical care because of abdominal complaints was recorded.

Table 2: 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 • 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

Translation and cultural adaptation

The questionnaire was translated into Arabic according to the international principles (WHO, 2013). As a part of the translation process, the Arabic language versions were tested with IBS patients. The questionnaire was back translated into English after translation into Arabic and reviewed again by members of the questionnaire survey team to ensure preservation of content and clarity of the items (Gorecki, *et al.* 2013).

RESULTS

Between November 2012 and December 2013, 450 consecutive patients attended the AL Marj- Libyan Red Crescent primary care clinic, 234 (52%) were female and 216 (48 %) were male, population aged 20-80 years, and mean age was 53 years (SD+ 15.6), with 38%, 35%, and 27% in the age groups 20-40, 41-60, and 61-80 years respectively. There

ISSN: online 2617-2186 print 2617-2178

were 240 subjects (53.3%) reported abdominal discomfort or pain at least once in the previous 12 months. 130 (29%) subjects had discomfort occurred more than 6 times during the past year. 99 (22%) subjects reported lower abdominal pain, and 54 (12%) had IBS. Prevalence of seeking medical care due to lower abdominal pain was lower in subjects aged 60-80 years compared to subjects aged 20-40 years. The prevalence of IBS was significantly lower in the age groups 60-80 and 40-60 years compared to 20-40 years old subjects (Table 3). 256 subject (56%) had reported intake of drugs prescribed by their doctors and 170 (37%) reported intake of different remedies (traditional treatment or herbal treatment) for abdominal symptoms in the past 12 months.

Table (3): prevalence of IBS and abdominal pain, for sex and age per 100 population

	Abdominal pain %	IBS %
All subjects	22	12
Sex		
Male	21.8	12.1
Female	22.2	11.9
Age groups (years)		
20-40	26.6	17.5
40-60	22.6	11
60-80	16.8	9.6

DISCUSSION

Our study was not different from international reported studies on the prevalence of Irritable bowel syndrome (IBS) which is 12%. (Icks *et al.* 2000), 53.3% had looked for medical advice for abdominal pain. (Talley & Boyce 1979) had reported the results of a population- based study which attempted to explain health care seeking for irritable bowel syndrome (IBS) patients. Of their sample, 13% had IBS, and of this, 73% had sought medical care for abdominal pain or discomfort. (Ringström *et al.* 2007). There was no significant association observed between the prevalence of Irritable bowel syndrome (IBS) and sex in our study. IBS was in women 11.9% and in men 12.1%. We might attribute that to the clinic based questionnaire, although in the literature there was nothing to support differences in prevalence among different sexes because female subjects had more GI-related health-seeking behavior than the male counterpart, whereas no gender difference existed in terms of previous medical or intra-abdominal surgical history, education, school/ work absenteeism and sleep disturbance. (Lu *et al.* 2006; Chang *et al.* 2010). In our study we found that Functional bowel disorder in the elderly was less frequent compared to younger age groups, and the prevalence of seeking medical care due to abdominal pain was lower in subjects aged 60-80 years compared to subjects 20-40 years. This is very important to draw our attention to organic cause for GIT symptoms in the elderly along with other alarming symptoms (table 4). As in age over 50 years at onset of symptoms, male sex, blood mixed in the stool, and blood on the toilet paper were all predictors of an organic diagnosis. (Talley *et al.* 1992a).

Table (4): Alarm features in irritable bowel syndrome (Spiller et al. 2007)

- Age 50 years
- Short history of symptoms
- Documented weight loss
- Nocturnal symptoms
- Male sex
- Family history of colon cancer
- Anemia
- Rectal bleeding
- Recent antibiotic use

More than half of the patients with lower abdominal pain (56%) had mentioned that they had taken prescribed drugs from their doctors due to their abdominal symptoms in the past 12 months, and more than one third of them (37%) have used different remedies (traditional treatments or herbal treatments) (Ikechi et al., 2017), and probiotics and prebiotics, (Lawrence & Hyde, 2017). This indicates considerable patients seek medication and traditional remedies due to their bowel disorders. Further investigations of treatments are

ISSN: online 2617-2186 print 2617-2178

required because of the high financial burden for individuals as well as for the society.

CONCLUSION

Living with functional bowel disorder represents daily challenges. It may be painful or embarrassing and can seriously affect the quality of life. As yet there is no imaging test to aid in diagnosis, which relies upon history. Although many adults have signs and symptoms of functional bowel disorder, fewer than half seek medical help. Yet it's important to discover alarming symptoms especially after the age of 50 years.

ACKNOWLEDGEMENTS

We thank Libyan Red crescent clinic at Al marj city, the administration and medical staff for helping and allowing us to conduct the study and using their resources.

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ISSN: online 2617-2186 print 2617-2178

مدي شيوع متلازمة القولون العصبي لمترددي عيادات الهلال الاحمر للرعاية الأولية بمدينة المرج ليبيا

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تاريخ الاستلام: 15 اكتوبر 2017 / تاريخ القبول: 11 ديسمبر 2017.
Doi:https://doi.org/10.54172/mjsc.v33i2.113

المستخلص : متلازمة القولون العصبي هي إحدى اضطرابات الجهاز الهضمي المزمنة والمتكررة، وتتميز بآلام البطن المختلفة لكنها تثير الحيرة بسبب الاضطراب الوظيفي للقولون وعدم وجود مرض عضوي واضح أو تغيرات هامة في الفحوصات المخبرية، والأشعة السينية، وكذلك تصوير البطن والمناظير الطبية أو الفحص النسيجي. الغرض من هذه الدراسة تقدير مدي انتشار الامراض الوظيفية خصوصا أمراض القولون العصبي بين المرضي مترددي العيادات العامة وكذلك تقدير قبول وبحث الأشخاص على الخدمات الطبية والعلاج. تم اختيار مشاركين بهذه الدراسة من عيادات الرعاية الأولية للهلال الأحمر الليبي بمدينة المرج ليبيا من الفترة بين نوفمبر 2012 الي ديسمبر 2013، تم سؤال كل مشارك عن طريق استبيان يعتمد علي توصيات اجتماع روما الثالث الخاص بتشخيص القولون العصبي ، حضر 450 مشارك لعيادة الهلال الاحمر 234 (52%) نساء و216 (48 %) رجال، تراوحت اعمار المشاركين بين20 - 80 سنة، متوسط العمر 53 سنة (انحراف معياري ± 15.6). بينت هذه الدراسة شيوع القولون العصبي بنسبة 12% وإن 53.3% من المشاركين بحثوا عن المساعدة الطبية بسبب الام البطن. لا يوجد ارتباط بين شيوع القولون العصبي وجنس المريض وذلك لتعادل نسبة المرض بين الجنسين تقريبا (11.9%في النساء و12.1.% الرجال). وأوضحت هذه الدراسة عزوف المسنين عن المساعدة الطبية مقارنة بالأصغر سناً، وكذلك وجود عدد كبير من المشاركين يلجؤون للتداوي بالطب البديل. كما يحتاج هذا المرض لمزيد من الابحاث وذلك لشيوعه وقلة الدواء الناجح، مما أدي إلى ارتفاع الكلفة الاقتصادية على الأفراد والمجتمع.

الكلمات المفتاحية : القولون العصبي، اجتماع روما الثالث، الام البطن او المضايقة، الامراض الوظيفية للجهاز الهضمي.

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