Evaluation of Patients with Irritable Bowel Syndrome Diagnosed by Clinical Rome Criteria

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Abstract

Sixty four patients who met the clinical Rome criteria for Irritable Bowel Syndrome were prospectively evaluated by hematological, biochemical, endoscopic and sonographic methods. Complete blood count, sedimentation rate (ESR), thyroid profile, urinalysis, chest skiagram were found normal or yielded no useful information. Stool examination revealed 6 (9.4%) positive for ova/cyst of parasites and 7(10.9%) showed bacterial growth on culture. Structural evaluation (double contrast x-ray of colon, flexible sigmoidoscopy, endoscopy of upper GI tract abdominal sonography) revealed abnormalities including: polyp (1), colitis (2), peptic ulcer (7), gall stone (2). So hematological, biochemical and structural evaluation should not be routinely done in all patients diagnosed by Rome criteria unless sinister symptoms of organic diseases are present.

Introduction

Irritable bowel syndrome (IBS) is the most common functional gastrointestinal disorder encountered by general physicians and affect 20% of people at any time. It is also reported to for 40-70% work of gastroenterologist. However, most of the people (60-70%) with IBS do not consult with physicians [1]. Functional bowel disorders have their basis in abnormal physiology or function and because of physiologic testing in GI tract is less defined thus the diagnosis of these disorder primarily depend of clinical rather than laboratory data. IBS is considered as a functional motility disorder and no endoscopic, radiographic and biochemical abnormality associated with its diagnosis[2]. So diagnosis is often made by exclusion of organic disease. Till date IBS has become a symptoms criteria based positive

diagonsis, not a diagnosis of exclusion[3]. Among many diagnostic criteria Rome criteria probably the most reasonable approach for clinical diagnosis and research purpose. Few studies are attempted to the validity of Rome criteria for diagnosis of IBS. Furthermore normal bowel habit is extremely variable from country to country and profoundly influenced by social attitudes, medical funds and commercial advertisements[4].

IBS is considered to be prevalent in Bangladesh. Most of the people are poor here and unable to pay for costly investigations. While organic disease is being ruled out many patients suffer from unproductive and costly investigations that contribute to patients' anxiety, frustration and monitory loss. Again all investigation facilities are not available in very nook and corner of the country even in all Medical Colleges. So if we

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make use of Rome criteria as positive diagnostic approach then it will be of immense help for patients and also for general physicians. Thus we can avoid costly and to some extent invasive investigations also. So the purposes of the study were: (a) to assess any need of investigation to exclude organic diseases in patients selected by Rome criteria and (b) to determine minimum tests which will give most useful information used to evaluate in patients who meet clinical Rome criteria.

Materials and Methods

During the period from July 1998 to June 1999 sixty four patients attending the Department of Gastroenterology, Bangabandhu Sheik Mujib Medical University, Dhaka were enrolled in this prospective study. Patients had met the Rome criteria of IBS which include : (a) Abdominal pain relieved by defaecation or associated with change of frequency or consistency of stool and (b) disturbed defaection, altered stool form, altered stool passage, passage of mucus and bloating or abdominal distension[5]. Patients having fever, significant weight loss, rectal bleeding, anemia, nocturnal diarrhoea and progressive steady worsening of symptoms were excluded from this study.

A careful comprehensive history and thorough physical examination were done in every patient and recorded in data collection sheet. All patients were subjected to following investigations :complete blood count , ESR, urinalysis, stool microscopy and culture, double contrast X-ray of colon, flexible sigmoidoscopy, endoscopy of upper GI tract, abdominal ultrasound, serum TSH and chest skiagram.

Results

The study population consisted of 64 patients. There were 45 (70.3%) males and 19 (29.7) females. Male to female ratio was 2.3:1. Majority of the subjects (45.37%) of either sex were in age group 25-35 years. IBS clinical criteria and gastrointestinal symptoms are listed in Table-I. Hematologic profile including TLC, DLC, ESR, Hb% were found to be normal. The results of stool examination has been shown in Table-II. Five patients had stool sample positive for ova of

Ascaris lumbricoides, three had cyst of *Giardia* and *E. histolytica*, three had significant pus cells and two had RBC's in stool. Culture of stool revealed *E. Coli* in 4 patients, *Aeromonas sobria* in 2, *Salmonella* in 1 patient. The structural evaluation were done in all patients by Double Contrast Barium Enema (DCBE) of colon, flexible sigmoidoscopy, upper GI tract endoscopy, abdominal sonography the results of which are mentioned in Table-III. The chest radiography and s. TSH were normal in all cases.

Table-I: Frequency distribution of IBS symptoms in the studied population according Rome clinical criteria (n=64)

Symptoms	No. of patients(%)
Abdominal pain relieved by defaecation	46 (71.9%)
Abdominal pain associated with change in stool frequency	58 (90.6%)
Abdominal pain associated with change in stool consistency	53 (82.8%)
Altered stool frequency	42 (65.6%)
Altered stool form	64 (100%)
Altered stool passage	46 (71.9%)
Passage of mucus	40 (62.5%)
Feeling of abdominal distension	52 (81.3%)

Table-II: Finding of stool exam. (n=64)

Stool exam	Abnormalities	No. (%)
Routine	Ova of A. lumbricoides	5 (7.8%)
	Cystof Giardia/Entamoeba	3 (4.7%)
	Significant pus cell	3 (4.7%)
	RBC	2 (3.1%)
	E. Coli	4 (6.3%)
Culture	Aeromonas sobria	2 (3.1%)
	Salmonella	1 (1.6%)

Table-III: Structural evaluation findings (n=64)

Name of test	Findings	No. of patients
DCBE of colon	No abnormality	Nil
Flexible sigmoidoscopy	Sessile polyp	1 (1.6%)
	Evidence of colitis	3 (4.7%)
Upper GI tract endoscopy	Duodenal ulcer (active/healed)	5 (7.8%)
	Prepylori c ulcer	2 (3.1%)
	Chronic gastritis including gastric erosion	7 (10.9%)
Abdominal ultrasound	Gall stone	2 (3.1%)

Discussion

IBS is a functional motility disorder and diagnosis is usually made by exclusion of other disease mimicking symptoms. There have been several attempts to outline the diagnostic evaluation for IBS[6,7,8]. For an accurate diagnosis the patients must have compatible symptom complex with other diseases excluded [7]. Prior works have suggested that structural evaluation of colon is indicated if finding such as obstructive symptoms, anemia, GI blood loss, family history of colon cancer, progressive weight loss[9]. In this study, however, CBC, ESR, Urinalysis, s. TSH, CXR were either normal or provided no clinical information. This finding conforms very well with study done by Beth et al who noted similar findings in their study[10]. Stool examination revealed eight patients were parasitologically positive and seven patients showed bacterial growth on culture. This finding do not correlate with the study of Beth et al[11]. The explanation for this dissimilarity is due to geographical prevalence of parasitological and bacterial infections in developing countries. As gastrointestinal infections are very common in our country such findings may be found in apparently normal persons.

Out of 64 patients we found 4(6.3%) minor structural abnormalities in flexible sigmoidoscopy, 2(3.1%) on abdominal USG 1(1.6%), 14 (21.8%) on upper GI tract endoscopy. The upper GI tract abnormalities were substantially higher than other study. Such higher abnormalities in upper GI tract probably due to increased prevalence of *H. pylori* infection in developing countries[12].

Conclusion

Routine blood test, thyroid profile, urinalysis and chest skiagram have no diagnostic yields in this study and should not be a part of routine IBS patients evaluation. Stool examination including culture and UGI tract endoscopy should be done in developing countries. DCBE of colon, flexible sigmoidoscopy are not required if patients are diagnosed using Rome criteria, after excluding with warning features of organic diseases and before the age of 50 years.

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