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Assessment Of Clinical And Psychological Status And Quality Of Life Of Patients In Different Forms Of Irritable Bowel Syndrome

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ABSTRACT

Irritable bowel syndrome (IBS) is a biopsychosocial disorder that consists of a set of functional disorders that cannot be explained by organic changes in the intestines. At present, it is very important to determine the indicators of quality of life (QOL) in patients with various diseases. QOL analysis allows us to determine how well a patient is coping with the disease, and is also important for addressing many of the issues that arise during treatment. The main complaints of patients were fecal incontinence (100%) and pain syndrome (100%). In patients with IBS with predominance of diarrhea and constipation, the leading symptom in the clinical picture of the disease is pain throughout the bowel, which decreases or disappears after defecation, accompanied by flatulence and a feeling of complete bowel emptying. ± 0.25 points (according to the results of the GSRS survey), which corresponds to severe and moderate intensity pain syndrome. At the end of the course of treatment, a statistically significant decrease in the intensity of abdominal pain was observed in patients.

KEYWORDS

Irritable bowel syndrome, quality of life, psychological status.

INTRODUCTION

Irritable bowel syndrome (IBS) is a biopsychosocial disease consisting of a set of functional disorders not explained by organic changes in the intestine (Sheptulin A.A., Vize-Khripunova MA, 2016, Hanyukov A.A., Fedorova N.S., 2017).

A meta-analysis published in 2012 found that the prevalence of IBS in the world was 11.2% when 80 clinical trials were conducted on a total of 260,960 patients, subject to strict selection criteria (Lovell RM, Ford AC., 2012). Only 12-15 percent of patients seek medical attention. IBS incidence is 7% in Southeast Asia, 20% in Europe and 21% in South America. According to the literature, the number of patients with functional disorders of the gastrointestinal tract, including IBS, in specialized gastroenterological hospitals reaches 41-45% (Pogromov AP, Mnatsakanyan MG, Tashchyan OV, 2016). The incidence of IBS among women remains higher than that of men. Young people are more likely to get the disease than people over the age of 50. Any manifestation of the clinical manifestations of IBS in patients of the older age group should alert the physician to the exclusion of organic pathology.

Analysis of modern data on the etiology and pathogenesis of functional pathology of the digestive tract allows us to comment on the concept of disease formation, obviously, it is not one, but several etiological factors, and in turn these factors are associated with not one but several pathophysiological mechanisms. And the complexity of controlling such patients is that the combination of etiopathogenetic mechanisms in each individual case is individual. Among them are: socioeconomic status, genetic predisposition, the possibility of disease in children of parents

with IBS, psychological aspects, hypersensitivity of the internal organs, disorders of the gastrointestinal tract, changes in the neuroendocrine system (brain-intestinal) axis), low-grade inflammation, the concept of post-infectious IBS, microflora imbalance and, finally, nutritional factors (Maev I.V., Cheremushkin S.V., Yu.A.Kucheryavyy, 2016, Maev I.V., Cheremushkin S.V. et al., 2016).

At present, it is very important to determine the indicators of quality of life (QOL) in patients with various diseases. QOL analysis allows us to determine how well a patient is coping with the disease, and is also important for addressing many of the issues that arise during treatment. Assessment of QOL can be used as an additional criterion in determining the severity of the patient's condition, evaluating the effectiveness of treatment, in particular, a comprehensive extended clinical analysis of new drugs, analysis of the effectiveness of primary or secondary prophylactic measures (Barishnikova N. and et al., 2013).

It should be noted that QOL analysis is based on a person's subjective perception. Methods of studying QOL are based on determining the patient's own level of well-being physically, mentally, socially and economically, i.e. the concept of QOL includes information on key areas of human life. Over time, QOL changes depending on the patient's condition, endogenous and exogenous factors, allowing the patient's condition to be dynamically monitored and monitored. QOL detection technology involves the direct involvement of the patient (World Gastroenterology Organization global guidelines irritable bowel syndrome: a global perspective, 2015).

Traditionally, QOL is assessed using various questionnaires, tests, scales, indices, questionnaires, which are divided into nonspecific and specific. In gastroenterological practice is often used specific - GSRS.

The GSRS (Gastrointestinal Symptom Rating Scale) questionnaire was developed by the QOL Research Division of ASTRA Hassle (Wiklund I., 1998) and is used to assess XS levels in patients with gastrointestinal disease. The Russian-language version of the GSRS survey was developed by researchers at the International Center for the Study of QOL (QOLO'XM, St. Petersburg), and in 1998 it was tested in a study of QOL for 2,000 residents of St. Petersburg. The Russian version of the GSRS gastroenterological questionnaire is reliable, authentic, and sensitive (Shlyakov A.E. et al., 2017).

THE PURPOSE OF THE STUDY

A study of the clinical, psycho-emotional status of patients with different forms of IBS and assessment of quality of life using a special questionnaire.

MATERIAL AND RESEARCH METHODS

The study was conducted in the gastroenterology department of BRMMC (Bukhara Regional Multidisciplinary Medical Center) and all patients treated with IBS in an inpatient setting for 2017-2019 were selected. The diagnosis of IBS was made based on IV Roman criteria (2016), using the Bristol fecal forms scale to determine the clinical form of IBS (Blake M.R., Raker J.M., Whelan K., 2016). Determination of the composition of chemical elements was carried out in the laboratory of the Institute of Nuclear Physics of the

Academy of Sciences of the Republic of Uzbekistan.

Criteria for inclusion: Conformity of the diagnosis of IBS to the IV Roman criteria, age - from 18 to 45 years, a letter of written consent.

Exclusion criteria: patients older than 45 years, "anxiety symptoms" (weight loss; onset of disease in old age; nocturnal symptoms; colon cancer, celiac disease, ulcerative colitis and Crohn's disease among relatives, persistent severe abdominal pain as the only symptom of gastrointestinal tract injury), fever, hepatitis - and splenomegaly, anemia, leukocytosis, increased ECG, the presence of occult blood in the stool, changes in the biochemical analysis of blood, steatorrhea and polyphagia).

A total of 121 patients and healthy people were examined. Patients were divided into 2 groups: the first group were patients with IBS, which were divided into 3 subgroups: IBSD (diarrhea) - 51 patients (20 men and 31 women), IBSc (constipation) - 66 patients (33 men and 33 women), IBSm (mixed) - 4 patients (2 men and 2 women). The control group included 20 healthy volunteers (6 males and 14 females) who underwent prophylactic screening as part of the examination of gastrointestinal tract pathology at BRMMC. The mean age of the control group was 25.75 ± 4.02 years.

Esophagofibrogastroduodenoscopy in all patients (FUGINON. FUGI FILM EPX-2500, 2014, Japan; FUGI FILM-EG-530PF, 2014, Japan), colonoscopy (FUGI FILM-EG-530FL, 2014, Japan), organ ultrasound examination, stool dissection (Vivid S-60, 2014, Norway), micronutrient status testing (mass spectrometry method, perkinelmer inc.,

Shelton, CT 06484, USA) and a special survey to determine quality of life - GSRS.

The Tsung scale was used to assess the degree of depression in patients. The GSRS questionnaire consisted of 15 sections, which were combined on 6 scales: abdominal pain, gastroesophageal reflux (or reflux syndrome), diarrhea syndrome, dyspeptic syndrome, constipation syndrome, and the final measurement scale. Indicators are assessed on a 7-point scale, with high scores corresponding to pronounced symptom development and low QOL. The survey was conducted on the day the patient was admitted to the hospital and 14 days after the main therapeutic treatment. The Tsung questionnaire consists of 20 sections, each of

which offers 4 answer options: 4 - “almost always”, 3 - “often”, 2 - “sometimes”, 1 - “almost never” or vice versa. The results were evaluated as follows: less than 50 - no depression, 50-59 - mild depression, 60-69 - moderate, 70 and above - severe depression.

RESULTS AND DISCUSSION

The relationship between disease onset and stress was observed in 65 (53.7%) patients with IBS, 36 (29.7%) reported symptoms after infection, and 20 (16.5%) reported symptoms after taking antibiotics. appeared against the background of non-compliance with diet, alcohol consumption and exercise. The duration of the disease averaged 4.18 ± 2.11 years, ranging from 1 to 15 years (Fig. 1).

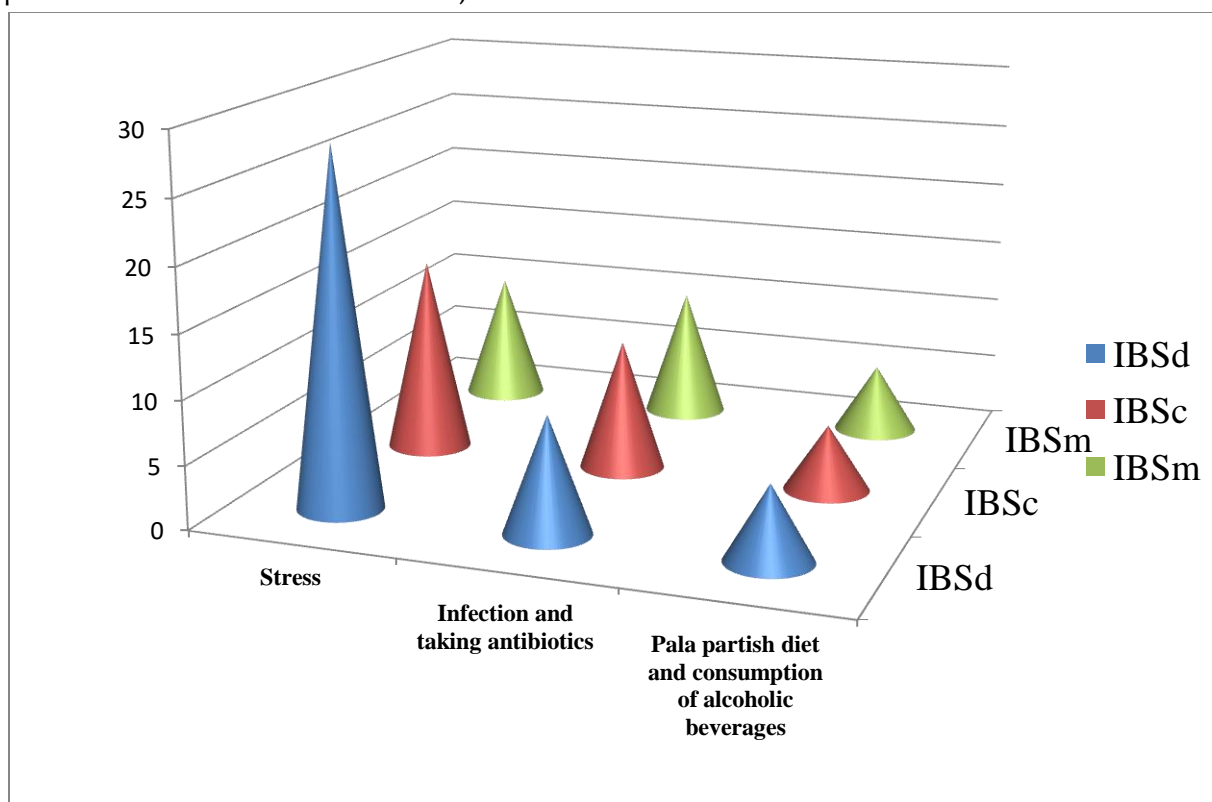


Figure 1. The rate of occurrence of etiological factors in various forms of IBS,%

The main complaints of patients were fecal incontinence (100%) and pain syndrome (100%). In patients with IBS with predominance of diarrhea and constipation, the leading symptom in the clinical picture of the disease is pain along the bowel, which

decreases or disappears after defecation, accompanied by flatulence and a feeling of complete bowel emptying (table 1). The nature of the pain varies, ranging from simmering pain to colic-like aggressive pain, varying in intensity and duration.

Table 1.

Clinical features of patients with IBS

Symptoms	IBSd N=51	IBSc N=66	IBSm N=4
Pain along the bowel that decreases or disappears after the act of defecation	51 (100)	66 (100)	4 (100)
Pain in the epigastric area that occurs after eating	8 (15,6)	9 (13,6)	1 (25)
A feeling of complete emptying of the bowel after the act of defecation	25 (49)	30 (45,4)	2 (50)
Flatulence	45 (88,2)	48 (72,7)	2 (50)
Pain along the direction of the colon when palpated	36 (70,5)	39 (59)	1 (25)
History of acute intestinal infections	26 (50,9)	36 (54,5)	1 (25)

When summarizing the survey data on the Tsungga scale, depression was not observed in 20.2% (less than 50 points) of patients with IBS with a predominance of diarrhea, mild depression (50-59 points) in 43.4%, moderate depression in 36.4% (60- 69 points) were observed. The mean values in this group of patients were 19.6 ± 0.2 , and in the control group 7.8 ± 0.2 . The results obtained indicate a

significant presence of depressive symptoms in this category of patients. The results of studies in IBSq and IBSa subgroups showed similar psychological changes. Mild to moderate depressive symptoms were also found to be underdeveloped in these patients. No severe depression was detected in any of the small groups (table 2).

Table 2.

The degree of development of depression in small groups of IBS

Type of IBS	No depression (%)	Mild depression (%)	Moderate depression (%)
IBSd	20,2	36,4	43,4
IBSc	38,2	35,2	26,4
IBSm	39,7	30,2	30,1

Based on the standard course of treatment as the main course of therapy, patients were prescribed myotropic spasmolys, osmotic laxatives (in constipation), psychotropic drugs in therapeutic doses (in severe cases) and physiotherapy. Positive dynamics were noted

in all patients after the course of treatment (table 3) - pain syndrome disappeared (100.0%) and symptoms of intestinal dyspepsia decreased (86.0%).

Table 3.

Assessment of quality of life of patients with IBS during GSRS survey during treatment (M ± m)

	Before treatment (points)	14 days after the main course of treatment
Abdominal pain	3,50±0,25	1,52±0,24*
Reflux syndrome	1,13±0,1	1,1±0,05
Diarrhea	3,44±0,16	1,34±0,20*
Dyspepsia	3,39±0,17	1,6±0,1*
Constipation	3,55±0,15	1,55±0,17*
Total score	34,8±4,11	21,4±2,14*

Note: * - reliability of differences after the main course of treatment ($p < 0.05$).

Initially, pain syndrome was observed in all patients and ranged from a maximum of 7 points to 3.50 ± 0.25 points (according to the GSRS survey), which is consistent with severe and moderate intensity pain syndrome. At the

end of the course of treatment, a statistically significant decrease in the intensity of abdominal pain was observed in patients. Initially, pain syndrome was more pronounced

in patients with diarrhea, who noted relief of pain after treatment (table 4).

Table 4.

Assessment of pain syndrome during treatment according to the GSRS questionnaire (M ± m)

	Abdominal pain (points)		
	Constipation	Diarrhea	Common Patients
Before treatment	* 3,41±0,16	3,75±0,19	3,58±0,28
After treatment	1,57±0,17*	* 1,36±0,20*	1,46±0,25*

Note: * right - data reliability before treatment ($r < 0.05$); * left - reliability of differences between groups ($r < 0.05$).

In patients with IBS, the severity of flatulence decreased significantly after treatment. The mean incidence of reflux syndrome was significantly lower than other syndromes and approached normal levels (table 4). The positive dynamics of the main symptoms of IBS had a positive effect on the quality of life of patients, which was assessed by the overall scores of the main gastroenterological symptoms during treatment.

CONCLUSION

1. More abdominal pain syndrome was noted in patients with a clinical form of IBS with a predominance of diarrhea.
2. In patients with IBS with a predominance of diarrhea, deeper depressive changes were found than with an IBS with a predominance of constipation and mixed type.
3. Quality of life in patients with IBS depends on the severity of abdominal pain and dyspeptic syndrome.
4. Decreased quality of life in the long run does not depend on the type of disease (IBS with constipation or IBS with diarrhea).

5. Assessment of quality of life during treatment can be used at all stages of follow-up of patients with IBS for timely correction of treatment.

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