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Suzana Tošić-Golubović[1], Aleksandar Nagorni[2], Srbobran Miljković[2], Suzana Raičević-Sibinović[1], Olivera Žikić[2]

[1] Physhiatry clinic, [2]Clinic for gastroenterology and hepatology, Clinical center Niš, Faculty of medicine Niš

EVALUATION OF THE PSYCHOPATHOLOGICAL MANIFESTATIONS AMONG THE PATIENTS WITH IRRITABLE BOWEL SYNDROME

SUMMARY

Irritable bowel syndrome (IBS) is diagnosed in 8–17% of the general population and it is one of the most often problem seen in gastroenterology. Literature data showed that in 54 to 100% IBS patients some psychiatric illness or disorder was diagnosed. This transversal hospital based study was realised in order to evaluate the levels of anxiety and depression, as well as to assess personality traits, neuroticism and neurotic characteristic of personality of IBS patients and to compare obtained results with the same among healthy individuals. Standard psychometric instruments employed included the Hamilton anxiety and Hamilton depression scale, Minnesota Multiphasic Personality Inventory (MMPI) and Eysenck Personality Inventory (EPI). High anxiety scores were noted among 14% IBS patients and none of healthy individuals noted such high scores from 21 to 25. The similar trends were observed in depression levels and 10% IBS patients had depression scores over 15, while such high scores were not reported in control group. Most of IBS patients had prominent neuroticism observed using Eysenck Personality Inventory, as well as high scores on hypersensitivity, depression and hysteria neurotic scales of MMPI. Our study showed that the patients suffering from IBS and seeking medical help because of their symptoms, reported many emotional problems among which anxiety and depression are the most prominent. It can be concluded that patients with IBS have premorbid personality characteristics that modulate the way that perceive and become distressed by physiological causes, resulting in depression, anxiety symptoms and more health-care-seeking behaviour.

Key words: **irritable bowel syndrome, depression, anxiety, neuroticism, neurotic personality traits**

INTRODUCTION

Irritable Bowel Syndrome (IBS) is a functional disorder characterized by a set of gastrointestinal symptoms with no known organic basis. Defining the clinical condition is abdominal pain and disturbed bowel function often associated with extradigestive symptoms. Although it does not present morbi-mortality, its course is chronic or recidivant, and it is the principal gastroenterological reason for consulting doctors of other specialties, giving rise to high costs at a social and health service levels. While abdominal pain, diarrhea and constipation are common in IBS, these symptoms are also found in organic abdominal disease. In order to avoid unnecessary investigations, diagnostic criteria based on history and patient symptom profile have been established (1,2) (table 1). The chronic and intermitent nature of symptoms and the lack of a definitive diagnostic tests make it difficult to deter-

mine the prevalence of this disorder. Although 17% of individuals in the general population may at some time endorse symptoms of IBS, only half of these seek medical atention, as a result of some psychological factors that may play an important role in determining health care-seeking behaviour (3).

The concept of IBS and its postulated pathogenesis have evolved since the earliest published descriptions of a disorder compatible with it in the nineteenth century (4). Psychological stress is widely believed to play a major role in IBS, because more than a half of IBS patients reported that the psychologically stressful events exacerbated their bowel symptoms and preceded the onset of their disorder (5). It is found that the onset of psychiatric symptoms occurred before the onset of gastrointestinal distress in a majority of these patients (6). One of the more striking features of this syndrome is the frequent finding of associated psychiatric illness, especially mood, anxiety and somatization disorders. Studies have suggested that 54%–100% of patients with IBS may have associated psychiatric illness (7–9). There are at least two possible ways that IBS and psychiatric illness could be related: – IBS could be a precursor of psychiatric disorders (a "somatopsychic" model); – IBS could be an epiphenomenon or forme fruste of psychiatric disorder (a "psychosomatic" model). This view is compatible with the idea that symptoms like those of IBS are common in the general population and when amplified by psychiatric illness, reach the status of a disease (3,6).

Inspired by numerous studies from literature, as well as with a variety of methodology and contradictory dates and results, we took our hospital based controlled study with aim to asses anxiety and depression, as well as the personality characteristics among patients with IBS.

MATERIAL AND METHODS

Hospital based study was realized at Psychiatry Clinic, as well as at the Clinic for gastroenterology and hepatology Clinical Center Niš during 2002. and 2003. Experimental group consisted of 30 IBS patients, 15 men and the same number of women, aged 25–65 from district of Niš. All patients from experimental group exhibited bowel symptoms and seeked treatment for, mentioned symptoms at the Clinic of gastroenterology. After gastoenterologic examination patients were diagnosed according to Rome symptom-based diagnostic criteria (table 1) for IBS and than were refered to psychiatric examination and evaluation. Control group consisted of 30 individuals from general population (15 men and 15 women) with similar age and sociodemographic characteristics. We tried to make a homogenization of our sample and took care about including criterias before starting our investigation and they were: primary education minimum, well somatic state, absence of any serious somatic or psychiatric illness at the moment of evaluation or in life-time history that need hispitalization.

All psychological assessments were focused on areas of anxiety and depression in the moment of evaluation as well as in life history of patients, presence of physical or sexual abuse, any significant life event before onset of bowel symptoms. Standard psychometric instruments employed included the Hamilton scale for anxiety, the Hamilton depression scale, MMPI (Minesota Multiphasic Personality Inventory), EPI (Eysenc Personality Inventory). The patients also responded to questionnaire items devised by the authors and focused on above mentioned areas. Statistical analysis of the date were accomplished with t-test and chi square test.

RESULTS

Our investigation included two groups of patients, experimantal group consisted of 30 patients with irritable bowel syndrome; control group consisted of 30 individuals from general population. Bouth groups included 15 men and 15 women in

Table 1. Symptom-based diagnostic criteria for irritabile bowel syndrome

At least three months of continuous or recurrent symptoms of:
(1)Abdominal pain or discomphorts: relieved with defecaion, and/or associated with a change in frequency of stool, and/or associated with a change in consistency of stool, and (2) Two or more the following, at least on one-forth of occasions or days: altered stool frequency altered stool form (lumpy/hard or loose/watery stool), altered stool pasage (straining, urgency, or feeling of incomplete evacuation), passage of mucus, and/or bloating or feeling of abdominal distension Source: Adapted from Thompson et al. (1992).

each group, aged 25–65 years, with average age 43.5 for IBS group and 39.9 for control group. All evaluated subjects from our study were from district Nis and had similar sociodemographic characteristics.

Most IBS patients 31%, had Hamilton anxiety scores range of 11–15, while only 3.3% patients from control group had mentioned scores and most of control subjects 86.6% had minimal anxiety scores range of 0–5 (figure 1). A significant number of IBS patiens, 14% presented very high anxiety scores range of 21–25, while such high scores were not opserved in control group. The diference in anxiety scores between IBS and control groups is significant (p< 0.0001) (table 2).

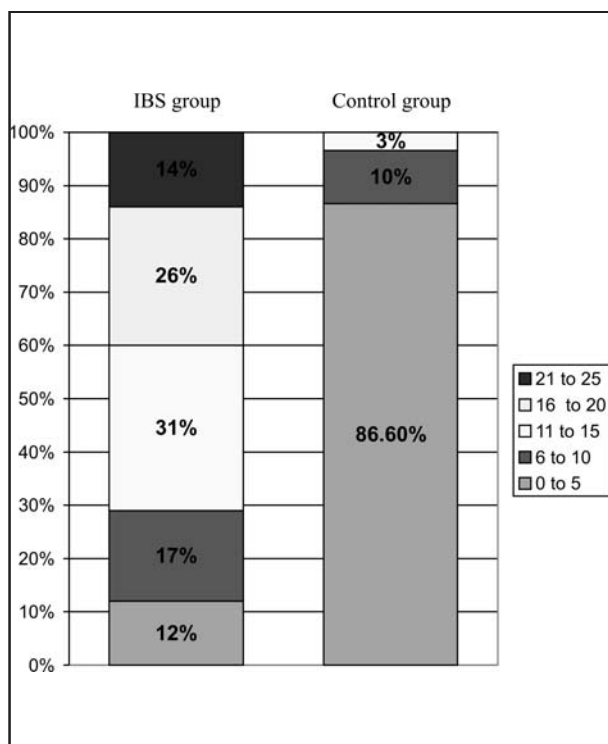

Figure 1. Distribution of Hamilton anxiety scores

More than a half of IBS patients, 52%, presented Hamilton depression scores range of 8–15 (figure 2), while most of control subjects, 90%, had low depression scores <7. Ten percentage of IBS patients had very high depression scores, more than 15, while such scores were not presented among control subjects. The diference in depression scores between IBS and control groups is significant (p< 0.0001) (table 2).

The great number of IBS patients, 49%, presented severe neuroticism scores observed on Eysenck Personality Inventory, while such neuroticism presented only 11% of conrol subjects (figure 3). Using Hi square test we showed that there was significant diference of neuroticism scores among IBS and contol subjecs (Hi square =17.982, DF=2 p<0.0001). The similar trend was observed using MMPI. 73% IBS patients presented elevatred scores on neuroic scales (scales of depression, hysteria and hypersensitivity (figure 4), while such scores were observed only among 27%, of controls and the mentioned diference is very significant (Hi square =16.148, DF=1 p<0.0001).

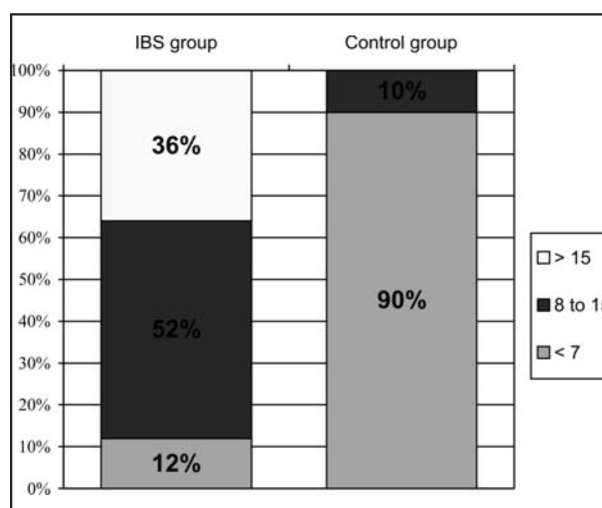

Figure 2. Distribution of Hamilton depression scores

DISCUSSION

IBS is a chronic and recidivant disorder that affects all everyday contexts and give rise to high social and health service costs and emotional unease among sufferers. While patients with symptoms of IBS represent 40% to 70% of referrals to gastroenterology, of then do not seek medical attention (10). Factors associated with seeing doctor are severity of symptoms and psychological discomfort (11).

The most commonly observed psychiatric disorders found in IBS patients are major depression, panic disorder, social phobia, generalized anxiety disorder and somatization disorder (12). Some evidence suggests that anxiety may be more prominent

Table 2. Distribution of the hamilton anxiety and depression scores

	IBS group X ± SD	Control group X ± SD	T-test	DF	p
Anxiety scores	13.667±6.3	4.552±2.785	7.135	58	<0.0001
Depression scores	12.667±4.83	4.867±2.543	7.817	58	<0.0001

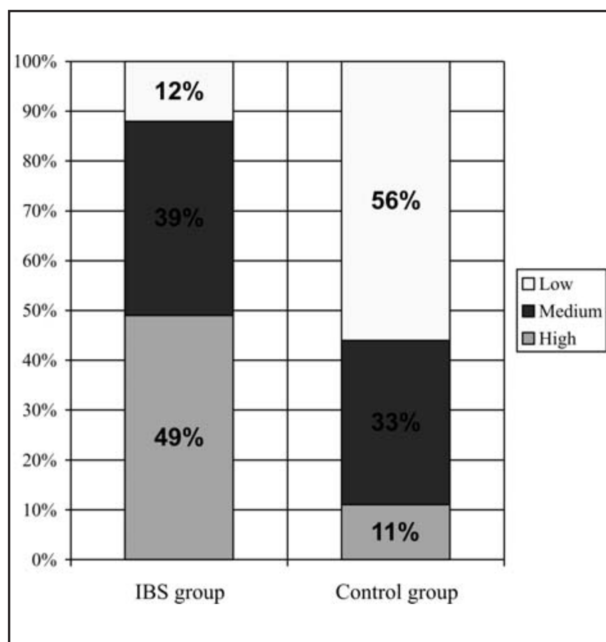

Figure 3. Distribution of neurothicism scores

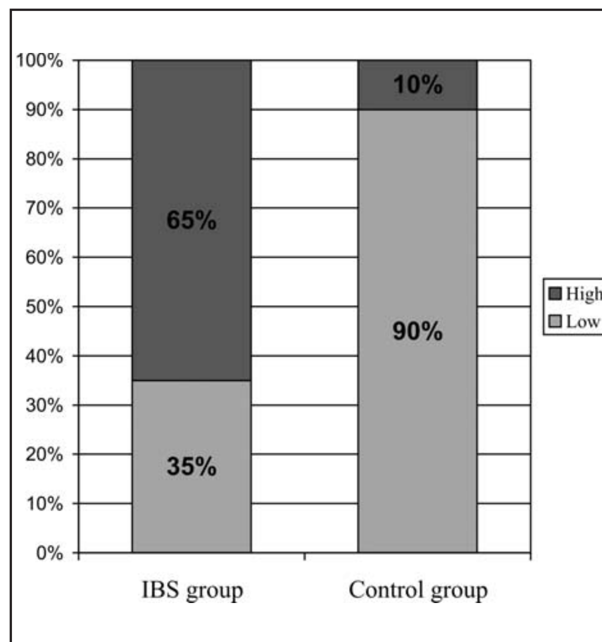

Figure 4. Distribution of neurotic scales scores of MMPI

early in the course of IBS, whereas depression is more common in patients suffering from chronic IBS symptoms (9,13). Conversly, psychiatric patients with anxiety and mood disorders have a significanly increased prevalence of IBS. In individuals wih both psychiatric disorders and IBS, psychiatric disorders are more likely to precede or begin at about the same time as IBS (8,9,12). Our hospital based study showed very high Hamilton anxiety levels in 14% of IBS patients, and one third of IBS patients showed moderate anxiety levels from 11 to 15, while only 3.3% of controls showed such scores. Psychiatric illnesses such as mood, anxiety, and somatisation disorderes share many common features with IBS: features of autonomic arousal are common in mood and anxiety disorders and in IBS too; chronicity nature, early age at onset, female predomination, lower predominance in the elderly (7).

The finding of 61% lifetime prevalence for depression in IBS is similar to lifetime prevalence for depression found in other conditions associated with chronic distress. (6,12). Most IBS patients (13) referred to psychiatrist by gastroenterologist, showed lifetime prevalence for an Axis I psychiatric disorders. The rates for depression (46%), generalized anxiety disorder (34%), panic disorder (31%), somatization disorder (26%), were reported by many authors (10,12,13,). On the other hand, almost a half of patients with anxiety disorders and depression (8,9) met criteria for IBS (14), where severity of both psychiatric and intestinal symptoms were closely correlated. Results of our study sugested that 10% IBS patients showed very high levels od depression and one half of them had depression levels betwen 8 and 15, that are significant depression levels comparing with the same among controls.

The bulk of the published literature (10,12, 15) indicates that individuals seeking treatment for IBS have high levels of neuroticis or other abnormal psychological traits, exibit more illness behaviour, use ineffective coping styles, consume more health services, and have increased prevalence of psychiatric disorders and sexual and physical abuse than individuals with IBS symptoms who do not become patients (16, 17).

Although patients with IBS are psychologically more distressed than normal subjects, had significantly higher scores on a number of Minesota Multiphasic Personality Inventory (MMPI) scales and showed lower ego strengh, they do not have a common psychological profile (10, 17). IBS patients from our study differ psychologically in many ways from normal subjects, 73% of them had higher neurotic scales levels on the MMPI comparing with the controls, where only 27% control subjects showed such levels. Patients with these abnormal profiles (scales for depression, hysteria, hypersensitivity) frequently report pain and other somatic complaints, particulary when under stress, tend to deny or minimize emotional concerns, display concern about health and bodily functions, and require reassurance about their health. However our findings should not imply that a distinct personality profile exists (18, 19).

The association between bowel symptoms and psychologic symptoms that is often seen in studies of medical clinic patients, such as our study, appears to be due to psychologically distressed patients selecting themselves for inclusion by going to physicians for treatment of bowel symptoms that other people ignore (20). For many patients clinical findings do not explain the repored degree of subjective

distress and functional impairment and psychologic assessment of IBS patients shows high prevalence of selfreported stress, personality disturbance and psychiatric diagnoses. These findings do not relate to the bowel disorder per se, but characterize the self-selected group with IBS who seek health care. Patients with abnormal psychologic scores may amplify symptom reports and illness behaviour (21).

CONCLUSION

IBS is a common and potentially debilitating illness in which both psychologic and psychosocial variables appear to play important roles in the development and maintance of IBS. The association of anxiety, depression and stress with IBS may be due to a combination of neurobiological factors that involving brain-interactions, anxiety and depression.

Our study sugested that pacients suffering from irritable bowel syndrome who seek medical halp becuse of their intestinal symptoms, presented emocional problems such as depression and anxiety and expresed neurotic personality traits. It can be concluded that patients with IBS have premorbid personality characteristics that modulate the way that perceive and become distressed by physiological causes, resulting in depression, anxiety symptoms and more health-care-seeking behaviour. In the complex treatment of IBS patients, involving psychiatrist is of great importance, especially if IBS would be treated as a biological vulnerability. Such vulnerability can be worsen during distess requiring psychiatry tratment of coegzisting psychiatric disorder, maladaptive illness behaviour, as well as conducting multimodal treatment strategy consisted of psycho and pharmacotherapy.

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EVALUACIJA PSIHOPATOLOŠKIH MANIFESTACIJA U PACIJENATA SA SINDROMOM IRITABILNOG KOLONA

Suzana Tošić-Golubović[1], Aleksandar Nagorni[2],
Srbobran Miljković[1], Suzana Raičević-Sibinović[2], Olivera Žikić[1]

[1]*Klinika za psihijatriju,* [2]*Klinika za gastroenterologiju, Klinički centar Niš, Medicinski fakultet u Nišu*

SAŽETAK

Sindrom iritabilnog kolona (IBS) se dijagnostikuje u 8–17% opšte populacije i jedan je od najčešćih problema u gastroenterologiji. Rezultati studija ukazuju da 54 do 100% IBS pacijenata imaju pridodatu psihijatrijsku bolest. Cilj naše transferzalne kontrolisane studije bio je utvrđivanje intenziteta anksioznosti i depresivnosti, kao i profil ličnosti u pacijenata obolelih od IBS u komparaciji sa kontrolnom grupom ispitanika iz zdrave populacije. Tokom istraživanja primenjivani su sledeći instrumenti: strukturisani psihijatrijski intervju, Hamiltonova skala za procenu anksioznosti, Hamiltonova skala za procenu depresije, Minesota multifazični inventar licnosti (MMPI) i Eysenckov upitnik ličnosti. U grupi IBS pacijenata čak 14% pokazalo je visoke skorove za anksioznost u rasponu od 21–25, dok ovako visoki skorovi nisu evidentirani u kontrolnoj grupi. Nadalje, u pomenutoj grupi čak 10% je imalo skorove za depresiju veće od 15, što su skorovi koji nisu evidentirani među ispitanicima iz kontrolne grupe. Većina IBS pacijenata pokazivala je jako izražen neuroticizam, kao i povišene skorove na skalama "neurotičnog trijasa" MMPI upitnika. Naša studija je pokazala da pacijenti oboleli od IBS koji se zbog svojih tegoba javljaju gastroenterologu, prezentuju niz emocionalnih pormećaja, mEđu kojima su anksioznost i depresivnost vodeći. Kad je reč o karakteristikama ličnosti jasno smo pokazali prevagu neurotskih crta (neuroticizma, hipohondričnosti, histeričnih i depresivnih crta) među navedenom grupom IBS ispitanika. Iz svega se može zaključiti da pacijenti sa IBS premorbidno pokazuju karakteristike ličnosti koje bi modulirale način na koji pacijenti percipiraju i reaguju na distres izazvan fiziološkim razlozima, što sve može rezultirati depresijom i anksioznim simptomima.

Ključne reči: **sindrom iritabilnog kolona, depresija, anksioznost, neuroticizam, neurotske crte ličnosti**