

The Frequency of Premature Ejaculation in Patients with Irritable Bowel Syndrome

Mohammad Asad Pour¹, Vahid Mirzaei², **Reza Bidaki³**, Ali Asghar Ghorbani⁴, Seyed-Ali Mostafavi^{5,6}, Mohammad Hossein Salehi Shahrabaki⁴, Alireza Arab Alidousti⁴, Zahra Rajabi⁷, Mohammad Ali Abdolkarimi Dawarani⁷

¹ PhD, Assistant professor of Health Education. Rafsanjan University of Medical Sciences, Rafsanjan, Iran

² MD Associated professor of Gastroenterology. Rafsanjan University of Medical Sciences, Rafsanjan, Iran

³ MD Assistant Professor of Psychiatry, Rafsanjan University of Medical Sciences, Rafsanjan, Iran

⁴ MD Rafsanjan University of Medical Sciences, Rafsanjan, Iran

⁵ PhD candidate, Psychiatry Research Center, Roozbeh Hospital, Tehran University of Medical Sciences, Tehran, Iran

⁶ Iranian Petroleum Industry, Health Research Institute (IPIHRI), NIOC Central Hospital, Tehran, Iran

⁷ Researcher, Rafsanjan University of Medical Sciences, Rafsanjan, Iran

ABSTRACT

Background:

Irritable bowel syndrome (IBS) is identified by chronic abdominal pain and altered bowel habits in the absence of organic etiology. Premature ejaculation is the most common male sexual disorder. We aimed to evaluate the frequency of premature ejaculation disorders in patients with IBS referred to a gastrointestinal clinic in Rafsanjan, Iran, in 2012.

Materials and Methods:

Of all the men referred to the gastrointestinal clinic, those with a diagnosis of IBS (based on Rome-II criteria) were interviewed. Premature ejaculation disorder based on DSM-IV-TR criteria was documented by psychiatry interview. History of psychiatric diseases of the patients and their family were assessed by interview done by a psychiatrist. The data were analyzed by using SPSS software (version 16). Descriptive statistics, inferential tests, and Chi-square test were used for analyses.

Results:

One hundred and fifty two men with IBS were evaluated. Based on the Rome-II criteria, 89 (58.6%) patients were suffering from premature ejaculation disorder. Fifty nine (38.8%) patients expressed drug addiction. Sixty eight (44.7%) had a history of psychiatric disease in the past and 84 (55.3%) patients stated they were not suffering from any psychiatric diseases. Forty six (30.3%) patients had a history of psychiatric disease in their family, and 106 (69.7%) did not have any history of psychiatric disorder. High frequency of premature ejaculation in patients with IBS with a family history of psychiatric disorder and severe stress during the past year suggested that there was a relationship between factors contributing to psychiatric disorders (neurotransmitters, environmental factors, and genetics) and premature ejaculation.

Conclusion:

Premature ejaculation is more common in patients with IBS. Drug abuse, family history of psychiatric disorder, and severe emotional stress during the past year, significantly increase the frequency of premature ejaculation.

Keywords: Premature ejaculation; Irritable Bowel Syndrome; Psychiatric disorders; Drug abuse

please cite this paper as:

Asad Pour M, Mirzaei V, Bidaki V, Asghar Ghorbani A, Mostafavi SA, Salehi Shahrabaki MH, Arab Alidousti AR, Rajabi Z, Abdolkarimi Dawarani MA. The Frequency of Premature Ejaculation in Patients with Irritable Bowel Syndrome. *Govaresh* 2014;19:202-7.

Corresponding author:

Reza Bidaki, MD

Psychiatry Service, Moradi Hospital, Rafsanjan, Iran

Tel: +98 391 5230081

E-mail: reza_bidaki@yahoo.com

Received: 20 Apr. 2014

Edited: 01 Aug. 2014

Accepted: 02 Aug. 2014

INTRODUCTION

Irritable bowel syndrome (IBS) is identified by chronic abdominal pain and altered bowel habits in the absence of any organic cause. The disease is most commonly diagnosed as a gastrointestinal disease. The prevalence of IBS in North America is estimated to be approximately 10-15% (1-6). A population study in Europe showed a prevalence of 11.5%, which is similar to the prevalence of IBS in America. However,

the prevalence of IBS in different countries varies (7, 8). IBS affects both sexes and can occur in younger and older populations. It is commonly diagnosed in younger women (8).

One study showed that some neurotic disorders such as anxiety disorders and sexual dysfunction were more common in patients with IBS(9). In another study, Walker and colleagues found pre-existing psychiatric disorders in most patients with premature ejaculation disorder (10).

In a study on 2276 patients, including 1143 men and 1133 women in Singapore, the researchers found that the prevalence of sexual dysfunction (erectile dysfunction) was 60.5% in men above 30 years with constipation and 48.6% in patients without constipation. In that study, chronic constipation was introduced as an independent predictor of erectile disorder (11).

Gurkan and colleagues concluded that premature ejaculation was the most common sexual dysfunction in men. Considering the imprecise definition of premature ejaculation, there is no consensus on its exact incidence. In different studies, the incidence rate ranged from 4-66% among men; however, most researchers agree on a prevalence of 25-40% in different societies(12). Premature ejaculation has many adverse effects for sexual partners and few comprehensive studies about understanding this disorder and its prognosis have been done(13).

Although medication may reduce or eliminate incurable sexual disorder in the short run, even the sexual physiological system does not show the same amount of performance as before and the problems worsen in long run. Therefore, it seems that the better understanding of this disorder and informing the community about the importance of identifying and treating these disorders can be effective for reducing related marital disputes, as well as preventing medication-related side effects(14).

Premature ejaculation is a common problem in all communities as well as our country and is among the most common sexual disorders with a prevalence of 35-45%, especially under the age of 40. It is a common phenomenon considering that most men have experienced this problem many times in their life time. Currently, many researchers and practitioners are emphasizing on identifying and curing sexual problems(15).

IBS affects mostly young people under the age of 45. 80% of patients with IBS are women and women are two to three times more likely to be affected(16).

There appears to be a relationship between IBS and psychiatric disorders, particularly sexual disorders such as premature ejaculation (16,17).

Considering the importance of healthy sexual activity in psychiatric health, the formation and stability of the family, and the prevention of conflict, misunderstandings and marital break down, it is important to expand knowledge in this field and deal with sexual disorders. In a cross-sectional study, we aimed to evaluate the frequency of premature ejaculation disorder and determine its related factors in patients with IBS who had referred to a gastrointestinal clinic in Rafsanjan, Iran, during 2012.

MATERIALS AND METHODS

1. Sample size and sample selection

Samples were collected based on the census method. Of all men referred to the gastrointestinal clinic, those with a diagnosis of IBS based on the Rome-II criteria, were interviewed according to the DSM-IV-TR criteria for premature ejaculation disorder. At the end of study period, 152 patients were evaluated. Written informed consent was obtained from the participants. Toxic agents, pharmaceutical agents, and chronic diseases that might mimic IBS symptoms or exacerbate the disorder were excluded. All patients above 18 years of age who fulfilled the criteria for IBS were included. Patients with IBS and with a history of premature ejaculation diagnosis who were under treatment or taking medicine for premature ejaculation were also included and they were put in the premature ejaculation group.

2. Data collection

The data collection questionnaire consisted of three sections. The first section included the patients' demographic characteristics including age, education, marital status, and also information about drug addiction. The second part consisted of the Rome-II diagnostic criteria for irritable bowel syndrome that was completed by a physician while interviewing the patients and the third part consisted of the DSM-IV-TR diagnostic criteria for premature ejaculation, completed by a psychiatrist interviewing the patients. Also psychiatric disorders were determined by interviews conducted by a psychiatrist.

3. Data analysis method

Finally, data were gathered, encoded, and analyzed using SPSS software, version 16. Descriptive statistics and inferential tests such as the Chi-square test were

used to analyze the data. Descriptive tests were used to determine the mean and standard deviation for quantitative variables such as age and frequency of premature ejaculation in different age groups and also in terms of demographic variables such as education level. The Chi-square test was used to determine the relationship between demographic variables and other factors. The results are presented in graphs and frequency tables.

4. Ethical considerations

All individuals were recruited with personal satisfaction.

- The information was kept confidential.
- Questionnaires did not contain the patients' names and were encoded.
- No interruption was forced in the treatment process of the patients and their regular treatment processes were continued after the study. Also, the patients diagnosed with premature ejaculation were assisted in visiting their healthcare practitioner.

RESULT

In our study, 152 men with IBS were evaluated with a mean \pm SD age of 32.84 ± 34 (Range: 20-56 years). Forty three (28.3%) patients were living in rural areas and 109 (71.7%) lived in urban areas. Fifty nine (38.8%) patients had drug addiction and 93 (61.2%) did not. With respect to education level, 2 (1.3%) patients were illiterate, 19 (12.5%) had primary education, 25 (16.4%) had middle school education, 54 (35.5%) had high school education, and 52 (34.2%) had a university education. History of psychiatric disease was assessed in the patients and their families (because some psychiatric disorders such as anxiety and stress may play role in premature ejaculation). Sixty eight (44.7%) patients had a history of psychiatric disease and 84(55.3%) stated they were not suffering from any psychiatric disease. 46 (30.3%) patients stated a history of psychiatric disease in their family, while 106 (69.7%) did not. Since intense stress during the past year can affect mood and psychiatric disorder, important events in recent years such as the death of a loved one, divorce, immigration, etc., was also assessed. Sixty six (43.4%) patients reported severe stress while 86 (56.6%) patients reported that during the previous year they have not experienced any kind of severe stress.

Recent intercourse, recent marriage or change of the partner in any way was assessed. Forty four (28.9%) patients expressed such change and 108 (71.1%) patients did not (table1).

Table 1: Frequency distribution of the patients based on their demographic variables

Variable		Number	Percent
Residential region	Village	43	28.3
	Town	109	71.7
Age	<30	69	45.4
	30-39	54	35.5
	40-49	22	14.5
	>50	7	4.6
IBS duration	<4	78	51.3
	4-9	47	30.9
Drug addiction	>10	27	17.8
	Yes	59	38.8
Education	No	93	61.2
	Illiterate	2	1.3
	Primary	19	12.5
History of psychiatric disorder	Guidance school	25	16.4
	High school	54	35.5
	College	52	34.2
Familial history of psychiatric disorder	Yes	68	44.7
	No	84	55.3
Recent considerable stressors	Yes	46	30.3
	No	106	69.7
New sexual contact	Yes	66	43.4
	No	86	56.6
	Yes	44	28.9
	No	108	71.1

Based on the duration of IBS, individuals were divided into three groups: ≤ 4 years ($n=78$, 51.3%), 4-9 years ($n=47$, 30.9%), and ≥ 10 years ($n=27$, 17.8%) (table1).

Based on the DSM-IV-TR (The Diagnostic and Statistical Manual of Mental Disorders Forth Edition Third Revision)criteria, 89 (58.6%) patients were suffering from premature ejaculation disorder, and 63 (41.4%) patients did not have the disorder.

Seventy four (83.1%) of the 89 patients who were suffering from premature ejaculation reported their premature ejaculation at early sexual activity, 39 (43.8%) identified this disorder as a result of drug addiction, and 32 (36%) patients reported taking medication to resolve this problem. Six of the 89 (6.7%) patients experienced physical causes of premature ejaculation (table 2).

We found no statistically significant difference between the two groups with respect to the place of residence, education level, history of psychiatric

Table 2: Frequency distribution of variables in patients with premature ejaculation

Variable		Frequency	Percent
Premature ejaculation due to addiction	Yes	39	43.8
	No	50	56.2
Drugs for Treatment of premature ejaculation	Yes	32	36
	No	57	64
Premature ejaculation in start of sexual activity	Yes	74	83.1
	No	15	16.9
Physical cause for premature ejaculation	Yes	6	6.7
	No	83	93.3
Frequency of sexual activity in a week	No	13	14.6
	Once a week	34	38.2
	Two times	28	31.5
	Three times or more	14	15.7

disorder in the individual, new sexual contact, age, and duration of IBS. The prevalence of premature ejaculation in addicted men and the group that was not addicted was 78% and 46.2%, respectively ($p < 0.001$, $df = 1$, Chi-square = 14.975).

In those who had a family history of psychiatric disorders, the prevalence of premature ejaculation were 73.9%, compared with 51.9% in those who had no family history of psychiatric disorder ($p = 0.011$, $df = 1$, Chi-square = 6.413). The prevalence of premature ejaculation in the group with and without severe stress in recent years such as the death of a loved one, divorce, etc, were 48.5% and 66.3% respectively ($p = 0.027$, $df = 1$, Chi-square = 4.872, table 3).

DISCUSSION

In a study conducted by Barghi and colleagues in Tehran, all patients with premature ejaculation during 2002 and 2003 referred to Shohada Hospital, were assessed with respect to psychiatric disorders and IBS. Of the 41 patients studied, 18 (40%) patients expressed symptoms of IBS. Thirty seven (59.5%) patients expressed psychiatric problems such as stress, obsession, and restlessness. In total, they found a statistically significant association between IBS and premature ejaculation (18). These findings are consistent with our results. In our study, of the 152 men who were evaluated based on the DSM-IV-TR criteria, 89 (58.6%) patients had premature ejaculation disorder.

Fass and colleagues studied a group of 683 patients and 247 controls in Germany. They found that the

prevalence of sexual dysfunction in patients who had gastrointestinal problems was about 43.3% with no significant association with sex, age, or type of disease (IBS and dyspepsia). In general, premature ejaculation disorder was associated with gastrointestinal problems (19). This, to some extent, is consistent with our results that showed no statistically significant difference with respect to premature ejaculation in different types of residential regions, education level, history of psychiatric disorder, new sexual contact, age, and duration of IBS.

Eugenio and colleagues compared women with IBS, with and without sexual dysfunction. In this study, 89 women with sexual dysfunction and 86 women without sexual dysfunction were evaluated. They found no significant relationship between this verity of IBS and sexual dysfunction in women (20). This was not consistent with our results. Our study showed that the prevalence of premature ejaculation in patients with IBS was higher than the general population; this difference between studies may be attributed to differences in psychological and social factors between societies.

Son and colleagues in a study conducted in South Korea in 2011, enrolled 956 men over 20 years and found that 10.5% of them were suffering from premature ejaculation; among this group, about 25.4% had psychiatric problems (21). This was consistent with our study which shows that family history of severe stress and psychiatric disorder during the previous year had a significant correlation with premature ejaculation.

Similar to previous studies showing a high prevalence and significant relationship between premature ejaculation and IBS, our study also showed that the prevalence of premature ejaculation in patients with IBS was higher than the general population. This is probably because of psychological factors in both diseases. IBS with abdominal pain and discomfort can affect the performance and completion of libido; although people suffering from premature ejaculation are always in an emotionally stressful stage. Stress itself can possibly cause symptoms of IBS.

High prevalence of premature ejaculation in patients with IBS with a family history of psychiatric disorder and severe stress during the past year suggest that there is a relationship between factors contributing to psychiatric disorders (neurotransmitters, environmental factors, and genetic factors...) and premature ejaculation.

In our study, the prevalence of premature ejaculation was higher than previous studies that were conducted in the Iranian population. However, because of the higher prevalence of addiction in Rafsanjan and its possible impact, we intentionally did not exclude drug users to

Table 3: Comparison of frequency of premature ejaculation based on demographic variables

Variable	Premature Ejaculation		p-value	df	Chi-square	
	Yes	No				
Residential region	Village	(58.1%)25	(41.9%)18	0.948	1	0.004
	Town	(58.7%)64	(41.3%)45			
Drug addiction	Yes	(78%)46	(22%)13	<0.001	1	14.975
	No	(46.2%)43	(53.8%)50			
Education	Illiterate	(50%)1	(50%)1	0.758	4	1.88
	Primary	(52.6%)10	(47.4%)9			
	Middle School	(60%)15	(40%)10			
	High school	(53.7%)29	(46.3%)25			
	College	(65.4%)34	(34.6%)18			
History of psychiatric disorder	Yes	(58.8%)40	(41.2%)28	0.951	1	0.004
	No	(58.003%)49	(41.7%)35			
Familial history of psychiatric disorder	Yes	(73.9%)34	(26.1%)12	0.011	1	6.413
	No	(51.9%)55	(48.1%)51			
Recent considerable stressors	Yes	(48.5%)32	(51.5%)34	0.027	1	4.872
	No	(66.3%)57	(33.7%)29			
New sexual contact	Yes	(68.2%)30	(31.8%)14	0.124	1	2.366
	No	(54.6%)59	(54.4%)49			
Age	<30	(65.2%)45	(34.8%)24	0.223	3	4.381
	30-39	(53.7%)29	(46.3%)25			
	40-49	(59.1%)13	(40.9%)9			
	>50	(28.6%)2	(71.4%)5			
	<4	(55.1%)43	(44.9%)35			
IBS duration	4-9	(61.7%)29	(38.3%)18	0.675	2	0.785
	>10	(63%)17	(37%)10			

evaluate its effect on premature ejaculation and we found a positive relation between drug addiction and premature ejaculation. Further studies are needed to evaluate different effects of narcotics on premature ejaculation.

Premature ejaculation is more common in patients with IBS than the common population. Drug abuse, family history of psychiatric disorders, and severe emotional stress during the previous year, can significantly increase the prevalence of premature ejaculation.

ACKNOWLEDGMENT

The authors sincerely appreciate the cooperation of

all participants as well as all those who helped us with this study. We would also like to thank the Research Committee of Rafsanjan University of Medical Sciences for their great help and corporation. This study was based on a research proposal that approved by the mentioned university and is based on a thesis for achieving the Doctorate degree in medicine.

CONFLICT OF INTEREST

The authors declare no conflict of interest related to this work.

REFERENCES

- American College of Gastroenterology Task Force on Irritable Bowel S, Brandt LJ, Chey WD, Foxx-Orenstein AE, Schiller LR, Schoenfeld PS, et al. An evidence-based position statement on the management of irritable bowel syndrome. *Am J Gastroenterol* 2009;104 Suppl 1:S1-35.

2. Ishihara S, Yashima K, Kushiyama Y, Izumi A, Kawashima K, Fujishiro H, et al. Prevalence of organic colonic lesions in patients meeting Rome III criteria for diagnosis of IBS: a prospective multi-center study utilizing colonoscopy. *J Gastroenterol* 2012;47:1084-90.
3. Aguas M, Garrigues V, Bastida G, Nos P, Ortiz V, Fernandez A, et al. Prevalence of irritable bowel syndrome (IBS) in first-degree relatives of patients with inflammatory bowel disease (IBD). *J Crohns Colitis* 2011;5:227-33.
4. Schmulson M, Vargas JA, Lopez-Colombo A, Remes-Troche JM, Lopez-Alvarenga JC. [Prevalence and clinical characteristics of the IBS subtypes according to the Rome III criteria in patients from a clinical, multicentric trial. A report from the Mexican IBS Working Group]. *Rev Gastroenterol Mex* 2010;75:427-38.
5. Mykletun A, Jacka F, Williams L, Pasco J, Henry M, Nicholson GC, et al. Prevalence of mood and anxiety disorder in self reported irritable bowel syndrome (IBS). An epidemiological population based study of women. *BMC Gastroenterol* 2010;10:88.
6. Stanicic V, Quigley EM. The overlap between IBS and IBD--what is it and what does it mean? *Expert Rev Gastroenterol Hepatol* 2014;8:139-45.
7. Hungin AP, Chang L, Locke GR, Dennis EH, Barghout V. Irritable bowel syndrome in the United States: prevalence, symptom patterns and impact. *Aliment Pharmacol Ther* 2005;21:1365-75.
8. Hungin AP, Whorwell PJ, Tack J, Mearin F. The prevalence, patterns and impact of irritable bowel syndrome: an international survey of 40,000 subjects. *Aliment Pharmacol Ther* 2003;17:643-50.
9. Arun P, Vyas JN, Rai RR, Kanwal K, Sushil CS. Psychological and sociodemographic correlates of the irritable bowel syndrome. *Indian J Psychiatry* 1993;35:193-6.
10. Walker EA, Roy-Byrne PP, Katon WJ, Li L, Amos D, Jiranek G. Psychiatric illness and irritable bowel syndrome: a comparison with inflammatory bowel disease. *Am J Psychiatry* 1990;147:1656-61.
11. Gwee KA, Siah KT, Wong RK, Wee S, Wong ML, Png DJ. Prevalence of disturbed bowel functions and its association with disturbed bladder and sexual functions in the male population. *J Gastroenterol Hepatol* 2012;27:1738-44.
12. Gurkan L, Oommen M, HW. Premature ejaculation: current and future treatments. *Asian J Androl* 2008;10:102-9.
13. Patrick DL, Althof SE, Pryor JL, Rosen R, Rowland DL, Ho KF, et al. Premature Ejaculation: An Observational Study of Men and Their Partners. *J Sex Med* 2005;2:358-67.
14. Rezakhaniha B, nejad Ms. Prevalence of sexual dysfunction and related factors in patients during an army of 501 men referred to urology 2004-2005 to Military. *Med J Islamic Republic of Iran* 2005;3:1354-8.[Persian].
15. Carson C, Gunn K. Premature ejaculation: definition and prevalence. *Int J Impot Res* 2006;18 Suppl 1:S5-13.
16. Meleine M, Matricon J. Gender-related differences in irritable bowel syndrome: Potential mechanisms of sex hormones. *World J Gastroenterol* 2014;20:6725-6743.
17. Mulak A, Tache Y, Larauche M. Sex hormones in the modulation of irritable bowel syndrome. *World J Gastroenterol* 2014;20:2433-48.
18. Barghi M. The relation of enuresis and irritable bowel syndrome with premature ejaculation: a preliminary report. *Urol J* 2005;2:201-5.
19. Fass R, Fullerton S, Naliboff B, Hirsh T, Mayer EA. Sexual dysfunction in patients with irritable bowel syndrome and non-ulcer dyspepsia. *Digestion* 1998;59:79-85.
20. Eugenio MD, Jun SE, Cain KC, Jarrett ME, Heitkemper MM. Comprehensive self-management reduces the negative impact of irritable bowel syndrome symptoms on sexual functioning. *Dig Dis Sci* 2012;57:1636-46.
21. Son H, Song SH, Lee JY, Paick JS. Relationship between premature ejaculation and depression in Korean males. *J Sex Med* 2011;8:2062-70.