

EFFECTS OF RELAXATION AND CITALOPRAM ON SEVERITY AND FREQUENCY OF THE SYMPTOMS OF IRRITABLE BOWEL SYNDROME WITH DIARRHEA PREDOMINANCE

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ABSTRACT

Objectives: Irritable bowel syndrome (IBS) is the most prevalent functional bowel disorder which is characterized by chronic abdominal pain and altered bowel habit in the absence of any organic disease. This study examined the effects of "relaxation and citalopram" in comparison to "citalopram" alone on alleviating the symptoms of IBS patients with diarrhea predominance.

Methodology: This study was a randomized clinical trial which included 64 IBS patients. The patients were selected according to Rome-III criteria, and were divided into two groups. Bowel Symptoms Severity and Frequency Scale (BSS-FS) was used for evaluation of the patients' symptoms. Data was analyzed using analysis of covariance (ANCOVA).

Results: There were significant differences in the severity and frequency of IBS symptoms between two groups after the study period regarding BSS-FS ($P < 0.05$). However, no significant difference was observed at follow-up stage between two groups ($P > 0.05$).

Conclusion: Relaxation in addition to citalopram in IBS patients with diarrhea predominance can decrease the severity and frequency of symptoms. However, stopping this treatment may lead to recurrence of the symptoms.

KEY WORDS: Irritable bowel syndrome, Relaxation, Citalopram, Bowel Symptoms Severity and Frequency Scale (BSS-FS).

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INTRODUCTION

Irritable Bowel Syndrome (IBS) is a functional bowel disorder in which abdominal pain or discomfort is associated with defecating or a change in bowel habit and features of disordered defecation.¹ IBS is mainly a disorder of young people, with most new cases presenting before the age of 45.² Women are diagnosed with IBS two to three times as often as men.³⁻⁵ Studies indicate that approximately 50-90% of patients seeking treatment for IBS meet criteria for a psychiatric disorder. The psychiatric disorders include major depressive disorder, general

anxiety disorder, panic disorder, social phobia, somatization disorder, and post traumatic stress disorder.⁵ About 55% of IBS patients have presented with an axis I psychiatric disorder,⁶ and 40-80% of patients reported psychiatric symptoms prior to the onset of gastrointestinal symptoms.⁷

Psychological treatments and the efficacy of antidepressants are considered to be useful in IBS, although the evidence is based on small, often flawed trials and is controversial.⁸⁻¹⁰ Relaxation therapy or multimodal therapy (a combination of relaxation therapy, education and psychotherapy) is beneficial for IBS.¹¹ In a study the effect of "breathing exercises" and identification of life stress was compared to pharmacological treatment with antispasmodic Colpermin in IBS patients. The results indicated that the group which received stress management reported fewer and less severe gastrointestinal attacks than the pharmacotherapy group. The authors considered the treatment to be more helpful at a 6-month follow-up.¹²

Studies of citalopram and amitriptyline in IBS symptoms also have shown that these drugs significantly improve IBS symptoms, including abdominal pain, bloating compared with placebo.^{13, 14}

The results of a study which examined the effects of relaxation response meditation on the symptoms of IBS, showed significant improvement in the relaxation response meditation condition when compared to the wait list symptom monitoring condition.¹⁵ In another review study which evaluated complementary and alternative medicine for treatment of IBS, it was noted that several complementary and alternative therapies (relaxation and hypnotherapy) can be recommended as part of an evidence-based approach to the treatment of IBS.¹⁶

The aim of this study was to examine the effect of relaxation with citalopram in the frequency and severity of IBS symptoms.

METHODOLOGY

This study was carried out as a clinical trial. Study population consisted of all patients with gastrointestinal complaints of Esfahan province

who presented to Psychosomatic Clinic of Noor Hospital. Following examination by a gastroenterologist and using diagnostic criteria of Rome-III, 64 cases with IBS diagnosis who had diarrhea as their dominant symptom were selected. The patients were divided into two groups each one consisted of 32 patients.

The first group underwent relaxation with medication therapy, and the second group only received medication. The duration of treatment was two months. Relaxation therapy included eight sessions once weekly. The medication used was citalopram (a selective serotonin reuptake inhibitor (SSRI)) which was administered for both groups. Citalopram was initiated with the dosage of 10 mg daily and was increased to 40 mg daily after three weeks. We used Bowel Symptoms Severity and Frequency Scale (BSS-FS) which was designed by gastroenterologists according to Rome-III criteria. This scale contains five questions about frequency and five questions about the severity of bowel symptoms. It measures the symptoms of IBS patients with diarrhea as dominant symptom (IBS-D). The scoring of this scale was proportional to the severity and frequency of symptoms in Likert scale (0-4). This test was done in three stages; the first stage before therapeutic interventions, the second stage after therapeutic interventions, and the third stage was three months after the last interventions or follow-up. This questionnaire was experimented in 30 patients via a pilot study during two weeks that yielded correlation in two experiments was 0.81.

Statistical method used in this study was covariance analysis that compared the two groups with regard to covariate variables (pre-test and history of illness). Levenes test results showed that pre-assumption equivalent of covariance of dependent variable in both groups and because of assimilation of samples in groups we were able to use analysis of covariance (ANCOVA).

RESULTS

The average age of patients was 33 years. Twenty-four patients were male and 40 were female. Fifty patients were married and 14 were

Table-I: ANCOVA results comparing the differences variable and control of history illness and pre-test of BSFS in post-test and follow-up stages

| Source | Mean square | Df | F | Sig | Eta ² | Observed Power |
|--------------------|-------------|------|-------------|------------------|------------------|----------------|
| history of illness | 8.64(8.75) | 1(1) | 5.17(4.32) | 0.028* (0.035)* | 0.26(0.20) | 0.84(0.89) |
| pre-test | 9.85(8.35) | 1(1) | 7.25(6.49) | 0.008** (0.040)* | 0.45(0.18) | 0.92(0.81) |
| groups different | 10.53(6.63) | 1(1) | 15.62(3.20) | 0.001** (0.88) | 0.62(0.24) | 0.96(0.83) |

* p<0.05. ** p<0.01

single. Most of them had high school diploma (37.5% in relaxation group and 31.25% in drug group). Most of patients were suffering from IBS between 5 to 9 years; 46.8% of patients in relaxation group and 50% in drug group. There wasn't any correlation between demographic characteristics and pre-testing scores of BSS-FS. But there was correlation between illness history and pre-testing scores of BSS-FS.

Comparing the differences between the two studied groups in terms of dependent variables showed that there was a significant difference between "relaxation group" and "citalopram with relaxation group" in Bowel Symptoms Frequency Scale (BSFS) in post-test stage. However, there was no significant difference at follow-up stage (Table-I); (P = 0.001 vs. P = 0.88).

There was significant difference regarding means of Bowel Symptoms Severity Scale (BSSS) between two studied groups in post-test stage, but the difference was not significant at follow-up stage (Table-II); (P = 0.007 vs. P = 0.13).

DISCUSSION

Psychotherapy and anti-depression drugs have been demonstrated to be useful in sever IBS symptoms.¹⁰ Although SSRIs are used for IBS, there is not consistent evidence for its effects.^{9,13,17} It is estimated that in 50-90% of IBS patients, a psychiatric background is responsible for their problems. Depression, anxiety and somatoform disorders were reported more than other psychological problems in patients suf-

fering from IBS.⁵ Psychotherapy is always effective for reducing the IBS symptoms.^{8,18,19} In some studies, relaxation was reported as a method of psychotherapy for decreasing functional gastrointestinal disorders such as bloating, belching and diarrhea.^{15,20} But in some other studies relaxation wasn't reported to be more effective than routine clinical cares.⁸

Our results showed that the prevalence of IBS in women was more common than men which is in agreement with former researches.^{21,22} The presence of IBS history has been reported from 6 months to 22 years which shows that IBS is a chronic disorder.²³ The current results show that using relaxation with drug therapy was more useful than using only drug therapy for decreasing BSFS in IBS patients which was supported by a statistical significant difference. So we suggest that it is better to use psychological intervention along with pharmacotherapy.

ANCOVA results showed that there were significant differences between studied groups in severity and frequency of symptoms at post-testing stage but there wasn't significant difference at follow-up stage. Some investigators accept that using anti-depression drugs (for example citalopram and amitriptyline) are useful for reducing the severity and frequency of symptoms in IBS patients.^{13,14,24} In contrast, some other studies have not reported such a beneficial effect and claim that the effect of anti-depression drugs is similar to placebo.⁹ Using citalopram with relaxation in post-testing stage

Table-II: ANCOVA results comparing the differences variable and control of history illness and Pre-test of BSSS in Post-test and follow-up stages

| Source | Mean square | Df | F | Sig | Eta ² | Observed Power |
|--------------------|-------------|------|--------------|------------------|------------------|----------------|
| history of illness | 6.55(7.13) | 1(1) | 6.08 (5.72) | 0.014* (0.021)* | 0.31(0.28) | 0.81(0.78) |
| pre-test | 8.30(7.94) | 1(1) | 7.17 (6.25) | 0.005** (0.027)* | 0.52(0.30) | 0.93(0.85) |
| groups different | 9.66(5.04) | 1(1) | 12.81 (2.29) | 0.007** (0.13) | 0.59(0.18) | 0.91(0.80) |

* p<0.05. ** p<0.01

was more effective than using only citalopram and the difference at this stage was statistically significant but it was not significant at follow-up visit. IBS symptoms were back again at follow-up stage but the severity was lower than pre-testing stage. Gradual relapse of IBS symptoms after 6 months has been reported in other studies that show there wasn't any lifelong cure for IBS and this is a chronic disorder.^{25,26}

In conclusion, the results of this study showed that using anti-depression drugs with relaxation is useful for reducing the severity and frequency of symptoms in IBS patients. However, stopping this treatment will lead in recurrence of symptoms. Therefore, presence of cooperation between gastroenterologists and psychiatrists may have satisfactory outcomes for IBS patients.

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