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Research Article

THE ROLE OF YOGA IN IRRITABLE BOWEL SYNDROME MANAGEMENT

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ABSTRACT

Objective: The aim of our study was to determine the effect of yoga in management of IBS. **Material & Methods:** The study was conducted in medicine department of Major S D Singh medical college and hospital, Farrukhabad between November 2011-January 2012. A Total 75 OPD patients of IBS b/w age 20-50 years of both sexes were selected, total 72 patients completed the study. All the patients were on conventional medical management and half of the patients were also kept on yoga therapy. After three months of study data of both, the study and control group was evaluated and compared using unpaired t test. **Results:** There was significant improvements in symptoms of IBS patients in study group compared to the control group. **Conclusion:** The results supports the hypothesis and the research question that yoga therapy supplement with usual medical care for IBS is more effective than usual medical care alone.

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INTRODUCTION

In 1849 Cumming said of the irritable bowel syndrome “the bowels are at one time constipated & other time lax, in the same person. How the disease has two such different symptoms, I do not profess to explain”⁽¹⁾. Irritable Bowel Syndrome is a chronic, continuous or remittent gastrointestinal illness characterized by frequent unexplained symptoms that include abdominal pain, bloating, & bowel disturbance & may be either diarrhea or constipation or an erratic bowel habit that has features of both⁽²⁾. The etiology of IBS is poorly understood and may be multi-factorial. Altered G.I. motility, visceral hypersensitivity, post infectious reactivity, brain gut interactions, alteration in colon micro-flora, bacterial over growth, food hypersensitivity, carbohydrate mal-absorption, and intestinal inflammation all have been implicated in the pathogenesis of IBS⁽³⁾. Serotonin is largely present in the entero-chromaffin cells in the gut and is a major regulator of the peristaltic reflex and sensory relay in the gut⁽⁴⁾. The release of serotonin in plasma appears to be increased in diarrhea predominant IBS, (IBS-D), & decreased in constipation predominant IBS, (IBS-C)⁽⁵⁾. Psychological stress is widely believed to play a major role in functional gastrointestinal (GI) disorders, especially irritable bowel syndrome (IBS), by precipitating exacerbation of symptoms. The colonic motor response to stress is exaggerated in IBS⁽⁶⁾. Serotonin is

regarded as key neurotransmitter in intestinal secretory, sensory and motor functions & IBS is associated with perturbations in serotonin metabolism at various steps in signaling pathways.⁽⁷⁾ Anxiety stimulates exaggerated gut response, two separate pathways in ANS is associated with symptoms of either diarrhea (higher serotonin) or constipation (lower serotonin). Relaxation exercises actively turn off the stress response⁽⁸⁾. The present study seeks to evaluate the effect of yoga in patients of irritable bowel syndrome.

MATERIAL AND METHODS: The study was conducted in the department of medicine of Major S D Singh medical college & hospital, Farrukhabad November 2011 to January 2012. A total of 75 participants were recruited in the study of which 72 patients completed the study in three month period they were as under:- Group 1- YOGA group :- IBS patients practicing YOGA and taking usual medical treatment. Group 2- CONTROL group:- IBS patients on routine standard treatment for IBS not practicing yoga. Inclusion Criteria 1. Patients fulfilling ROME II criteria. 2. Age between 18 years to 40 years 3. Written or informed consent. 4. Long history of relapsing and remitting course. Exclusion Criteria, 1. Age <18 years or >40 years. 2. Course characterised by progressive deterioration. 3. Progressive weight loss 4. Rectal bleeding from causes other than anal fissure & hemorrhoids. 5. Steatorrhea dehydration. 6. Any contraindication to do yoga

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practice. All the participants in the yoga groups were instructed to practice yoga asanas daily early morning hours for 30 minutes, patients we trained in yoga asanas helpful in IBS . Patients were followed periodically for a total duration of 3 months. During this period patients were assessed at 1 month interval for improvement in their symptoms based on a questionnaire developed for this purpose . The mean score in the questionnaire were calculated for all the participants and the results obtained were analysed statistically and compared using unpaired t test to determine the significans between two groups.

RESULTS

The results of the study are depicted in the tables.

Table 1 Presenting Symptoms of IBS Patients

Symptom	No. of patients	% of patients
Constipation	36	50%
Diarrhea	25	35%
straining at stools	25	35%
Incomplete evacuation	50	70%
mucus with stools	32	45%

Table 2 Mean IBS questionnaire scores at baseline and follow up with p value

Group	Baseline	1 month	2 month	3 month
A	32.03 + 3.17	35.03 + 2.90 (p=0.09)	38.02 + 1.18 (p=0.03)	41.17+2.77 (p=0.01)*
B	32.84 +1.74	34.37 + 1.10 (p=0.0001)	36.17 + 1.08 (p=0.0001)	37.04 +1.19 (p=0.0003)**

*significant **not significant

DISCUSSION

Our study demonstrate that three month treatment with yoga therapy along with life style modification and conventional medical treatment has an significant influence on IBS which is supported by, Leora kuttner *et al*, Michaelson *A et al*, Streeter *C C et al*, Taneja *I. et al*. Underlying mechanism is given by these sources. (1) Leora kuttner *et al* 2006, mind body methods such as yoga with its reliance on deep relaxed abdominal breathing and attention to comfort may disrupt chronic patterns of functional disability and anxiety, which subsequently reduce overall levels of gastrointestinal symptoms⁽⁹⁾. (2) Taneja *I et al* 2004 two month yoga intervention showed significant decrease in IBS symptoms & anxiety states & enhanced parasympathetic activity as recorded by heart rate⁽¹⁰⁾. (3) Streeter *C C et al* 2007 yoga benefits by enhancing brain GABA levels a neurotransmitter inhibiting anxiety and stress⁽¹¹⁾. (4) Michaelson *A et al* 2005 Yoga beneficial effect is due to reduction and response in stress hormone cortisol⁽¹²⁾.

CONCLUSION

From our study it may be summarized that yoga in combination with conventional medical therapy was surely beneficial in management of irritable bowel syndrome and yoga should be added to the management of IBS.

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