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ORIGINAL ARTICLE

HYPNOTHERAPY IN THE TREATMENT OF LEVATOR SYNDROME

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Aim: *is to evaluate hypnotherapy as a possible treatment for Levator syndrome (L S)*
Methods: *In a controlled study 44 patients with levator syndrome were randomly allocated to treatment with either hypnotherapy or traditional therapy over 50 weeks, both groups were comparable in regard to, age, sex, duration of symptoms and pretreatment mean pain scores.*
Results: *the overall results showed highly significant difference in mean pain scores between both groups in favour of hypnotherapy. We noticed that change in pain scores between both groups reached statistical significance by the end of the second week. Of the 15 patients in the hypnotherapy group who had lateral levator tenderness on clinical examination, 10 were totally free from tenderness by the end of treatment, 2 had their tenderness milder and 3 persisted to report the same degree of tenderness, of whom 2 were the same who did not improve at all on hypnotherapy. On the other hand none of the 13 patients with lateral levator tenderness in the traditional therapy group showed any change in the degree of their tenderness by the end of treatment.*
Conclusion: *The results suggest that hypnotherapy seems to be highly effective in treatment of levator syndrome.*

Keywords: *hypnosis, traditional therapy, tenderness.*

INTRODUCTION

The levator syndrome is a symptom complex quite commonly seen in proctologic practice, it consists of pain, pressure or discomfort in the region of the rectum, sacrum and coccyx that may be associated with the presence of pain in the gluteal region and thighs, the symptoms are often increased by sitting.(1)

The pain may also be characterized by constant burning, and the patient frequently describes the sensation of sitting on a ball.(2) A common physical finding found in the most majority of patients with this syndrome is tenderness on palpation of left levator muscle,(1) the term Levator syndrome is probably synonymous with proctalgia fugax(2) treatment of this condition is unsatisfactory, the following modalities have been tried but none is usually successful; levator massage, sitzbaths, muscle relaxants, coccygectomy, local injection of corticosteroids.(3) Sohn and colleagues (1982) used high voltage electrogolvanic stimulation in 80 patients with levator syndrome and reported excellent results in 69% of patients during a period of follow up of at least one year. These observations needs to be reproduced by others.(3,4)

The exact aetiology is unknown, the absence of any objective abnormality suggests that at least a portion if not all of these cases is of psycogenic origin, it appears that, the tendency of this anxious gorup to somatize emotional conflicts by pain in the gastrointestinal tract is strong evidence that the syndrome is of psycogenic origin.(5)

Harvey (1979) in a unique study has demonstrated by intralumenal pressure recordings in two patients that the pain in this syndrome seemed to result from contractions of the sigmoid colon and concluded that it may be an unusual variant of irritable bowel syndrome in which pain is referred from the sigmoid colon to the rectum.(6)

Also Thombson (1984) has demonstrated close association

between irritable bowel syndrome and levator syndrome.[7]

Much attention has been paid to the application of hypnotherapy in disorders in which psychological factors are thought to be contributory[8] and hypnosis may influence a number of physiological mechanisms not readily amenable to conscious control.[9]

Whorwell et al., 1984 have conducted a controlled trial of hypnotherapy in the treatment of severe refractory irritable bowel syndrome and the hypnotherapy group showed dramatic improvement in all features with a highly significant difference between the two groups of the study[10] Because of the previously mentioned demonstrations,the hypothesis of trying hypnotherapy in the treatment of L.S has merit. To our knowledge there have been no trials on use of hypnotherapy in levator syndrome. The aim of this study is to evaluate hypnotherapy as a new modality of treatment for L. S.

PATIENTS AND METHODS

44 patients with levator syndrome (29 women, 15 men, aged 20-52 years) attending to the colorectal out patient clinic, Ain Shams University hospitals, were studied, the trial was carried out between March 1995 and April 1996 criteria for inclusion in the study were:

- Levator syndrome was defined as; unremitting pain, pressure or discomfort in the region of the rectum, sacrum and coccyx that may be associated with the presence of pain in gluteal region and thighs, the symptoms are often increased by sitting and may also be characterized by constant burning and the patient frequently describes the sensation of sitting on a ball.[1,2,3,4,5]
- This symptom complex should be complained of for at least 6 months before inclusion in the study.
- Data on clinical examination including neurological examination and straight leg raising are negative.
- Proctosigmoidoscopy and barium enema were normal for all patients.

To exclude a possible psychiatric disorder all patients were asked to complete the General health Questionnaire.[11]

Study design: After an informed consent was given patients were randomly allocated to receive either hypnotherapy (23 patients) or traditional therapy (21 patients). Hypnotizability was assessed in the group destined to receive hypnotherapy using Speigle's hypnotic induction scale,[12] all patients reported high scores, no patient could not be hypnotized and a medium to deep trance was obtained. After proper prehypnotic preparation and full explanation of the procedure to the group destined to receive hypnotherapy, hypnotherapy was carried out by the author using eye fixation with progressive relaxation technique by means of Skemp's induction device with verbal suggestion, this is followed by standard deepening procedures including Erickson's hand levitation[13] The hypnotherapy program consisted of 8 half an hour sessions over 2 months, the first 2 sessions were done as individual hypnotherapy and the next 6 as group hypnotherapy. After the 8th session a prerecorded cassette tape of 30 minutes duration for daily autohypnosis was given to every patient to be used at home. Hypnotic treatment consisted of two main strategies, first is to use direct intrahypnotic suggestions for direct symptom removal and the production of glove anaesthesia, where the patient was asked to pay attention to his/her hand and to cultivate the sensation of tingling and numbness there, and then place the hand on the hypogastrium to transfer these sensations to the region of the anorectum and to relate this to the relief of pain and spasm.

Second strategy, is to use post hypnotic suggestion that is to infom patient while under hypnosis that , there would be no pain or undue discomfort in the region of the anorectum after a wakening and the patient is then asked while under hypnosis to bring back pain at twice its original strength, followed by its decrease associated with a cue word or act "here we used placement of hand on the hypogastrium as a cue act" to be used as a post hypnotic suggestion that is the patient is asked whenever he/she experiences any pain, he/she will automatically use this cue act (putting the hand on the hypogastrium) to control pain, this is to be rehearsed several times under hypnosis, followed by future pacing to a time when the patient can see himself/herself in a good health and totally free from pain. Reinforcement by pleasant imagery using scene visualization, That is to conjure up a scene which is incompatible with pain such as lying on a beach feeling relaxed. All sessions were concluded with standard ego strengthening suggestions. For purposes of therapy patients before hypnotic treatment were given an idea of the pathophysiology of their problem so that they have some concept of how they are expected to improve the situation. Traditional therapy group served as control group and treatment consisted of, hot sitz baths and muscle relaxant in the form of Tizanidine 4 mg tab. twice daily.

All participants were asked to keep a dairy card on which they recorded daily the severity of their pain on basis of 4 point scale (0 = none, 1 = mild, 2 = moderate and 3 = severe or unbearable). The data for each 7 days were summated and mean weekly pain scores were calculated (the patient is considered to be improved if mean pain score <3).

This is to be started one week before and every week onwards after the start of treatment.

20 patients completed the hypnotherapy program, 3 patients were dissatisfied with treatment and withdrew after two sessions. Only one of the traditional therapy group dropped out of the study.

RESULTS

No significant differences between the two groups in regard to age, sex, duration of symptoms and number of patients with levator tenderness Table 1.

Table 1. Demographic and clinical parameters of patients at entry to the study.

Variables	Hypnotherapy N=23		Traditional therapy N=21		Statistical test	P
Age	32.4±5.6		32.4±7.6		t=1.03	P>0.05
Gender	M	F	M	F	Chi=2.6	P>0.05
	15	7	14	8		
	34%	16%	31.8%	18%		
Duration in years	1.2±0.05		1.03±0.12		T=1.6	P>0.05
Levator tenderness	+ve	-ve	+ve	-ve	Chi=3.9	P>0.05
	15	8	13	8		
	34%	18%	29.5%	18%		

Pretreatment pain scores were comparable in the two groups (P>0.05) (Fig. 1).

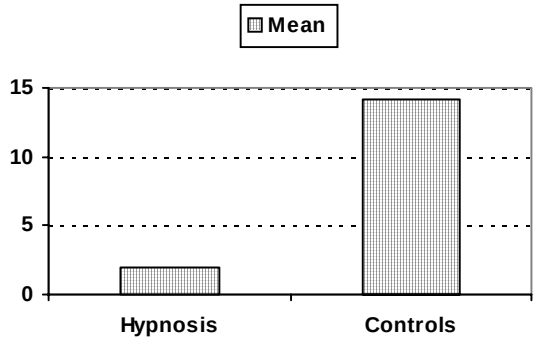

Fig 1. Score difference between both groups of the study (overall results).

The overall results showed, highly significant difference in mean pain scores between the two groups in favour of hypnotherapy [hypnotherapy group (1.99) and control group (14.1) P<0.01], of the 20 patients underwent hypnotherapy two patients did not improve and two had recurrence of pain (one by the 3rd month and the other one by the 5th month) for whom additional hypnotic sessions were offered followed by amelioration of their pain.

Of the 18 patients improved, 14 became totally free from pain and 4 had their pain ameliorated (mean pain score <3). Only 2 of the traditional therapy (control) group showed improvement.

Both groups were compared in regard to mean pain scores by student t-test of two independent samples over 50 weeks (period of follow up). We divided this period as follows; first week, next 8 weeks, next 8 weeks, next 16 weeks then final 16 weeks as shown in (Fig. 2). And Table 2. We notice that change in pain scores between both groups reached statistical significance by the end of the second week as shown by t-value, t-value = 8.19 and P<0.01 (highly significant).

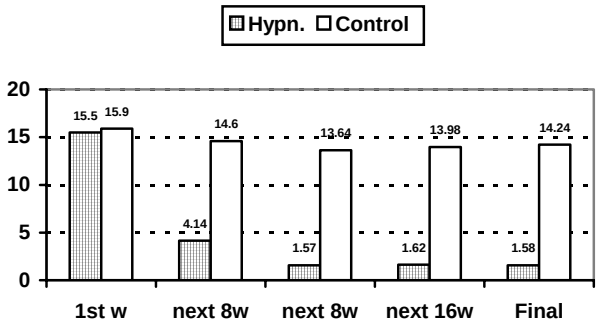

Fig 2. Score difference between hypnotherapy group and control group over 50 week.

Table 2. Mean pain score difference between the two groups (over 50 week).

Mean pain score	Hypnotherapy X±SD	Control X±SD
First week	15.5±0.23	15.4±1.3
2-8 week	4.14±3.28	14.6±1.18
8-16 week	1.57±0.12	13.69±0.5
16-32 week	1.62±0.26	13.98±0.47
32-50 week	1.58±0.22	14.24±0.39

T-value 8.19
P-value <0.01 highly significant
Change started by the end 2nd week

Of the 20 patients of the hypnotherapy group, 15 patients had lateral levator tenderness on digital rectal examination before the start of treatment. By the end of treatment 10 patients were totally free from lateral levator tenderness, 2 had their tenderness milder and 3 patients persisted to report the same degree of lateral levator tenderness, 2 of whom were the same who did not improve at all on hypnotherapy, and the remaining one only had his pain subjectively improved (mean pain score = 3).

Of the control group, 13 patients were having lateral levator tenderness on digital rectal examination before the start of therapy.

All of them showed neither absence nor reduction in the degree of their lateral levator tenderness by the end of treatment.

Non of the patients in the hypnotherapy group reported any substitution symptoms.

DISCUSSION

In this controlled therapeutic trial in patients with L. S, hypnotherapy was more successful than traditional therapy in improving complaints.

The trial showed highly significant reduction in the mean pain score in hypnotherapy group by the end of the second week which persisted after stopping therapeutic sessions (after 6 months) with only half an hour daily autohypnosis. The patients in the hypnotherapy group, not only improved subjectively but also objectively as seen in improvement of lateral levator tenderness in 10 of 15 patients who reported this clinical sign. This suggests that coping with the disease by hypnotherapy may be not only via ameliorating pain perception but also by influencing the underlying pathophysiology.

Patients selected for this study tended to be subjects with an annoying condition for which they seeked medical advice several times for treatment without benefit, meaning that they were highly motivated to try this form of treatment, explaining why all of our patients were successfully hypnotized and a moderate to deep trance was obtained with highly significant reduction in their pain compared to the control group. For the assessment of the patients in this series we used numerical pain scale, which is a quantitative score that objectively measures something that is very subjective, that is pain. We believe it is perhaps the best and most objective method to measure pain.

The mechanism by which hypnosis exerts its beneficial effects is unclear. gastestirointnal system in particular is subjected to a wide variety of outside neuro-endocrine influences and therefore might be a potentially good system for hypnotherapeutic modification.[14] Hypnosis is a state of altered consciousness resulting from focused attention during which ,the patient through suggestion is able to control pain,[15] and as studies have proved, specific autonomic control is achieved, including; volountary control of peripheral temperature, electromyographic responses, transcutanous tissue oxygen, and Detrusur muscle instability.[15-18] in other words it is a cyberphysiologic strategy (self regulatory ability).[15] Cyberphysiologic strategies comprise;relaxation imagery, self-hypnosis or biofeedback.[15] Protocols for the so called biofeedback training begin with a training process similar (if not identical)to relaxation imagery exercises that lead to an altered state of awareness like hypnosis[15,16] Under hypnosis, internal biofeedback with mental imagery plays an important role in attaining a desired response.[15,19,20]

Prior et al in 1990, have demonstrated that their patients with IBS can under hypnosis modify their rectal sensitivity and concluded that, one mechanism of hypnotherapy in treatment of IBS is that it seemed to produce a trend towards normalization of rectal sensitivity[21] suggesting that hypnotherapy can at least be targeted and can lead to some measurable changes in gut physiology. A particular feature of our hypnotherapeutic technique is that we use what is called gut directed hypnotherapy.[10,14,22]

Patients are first given a simple account of the pathophysiology of their condition, So that they have some form of disease model on which to work modifying this model Towards more normal function.[14,22] Harvey have suggested that proctalgia fugax is an unusual variant of IBS[6] and successful results have been obtained by Worwhell And coworkers, and also by Harvey et al in the use of hypnotherapy in treaetment of Refractory IBS, morever, Harvey et al have reported in his series that individual hypnotherapy is as effective as group hypnotherapy in treatment of refractory IBS[10,23-25] The sign of levator tenderness present in the most majority of cses reflects the presumed possible aetiology of this condition as described by Sinaki in 1977 as pelvic floor tension myalgia which represents a myofascial pain syndrome involving pelvic floor musceles.[26,27]. Hennan et al in his controlled trial of hypnotherapy in treatment of refractory fibromyalgia rheumatica have concluded that hypnotherapy seems to be effective in alleviating symptoms in his patients.[28] Hypnotherapy in LS seems to operate via a variety of mechanisms ;it could act in a non specific psychotherapeutic sense, increasing coping capacities and decreasing perceived stress. Also it could act by a direct hypnoanalgesic effect via modification of pain perception or more locally along afferent pathways, lastly, in targeted hypnotherapy the patients are given a simple account of the pathophysiology of tier condition so that they have some form of a disease model on which to work modifying this model towards a more normal function, we noticed that the tow patients who relapsed were the same we intentionally did not give a simple model of their disease problem to control. Thus targeting hypnosis may be of considerable value and suggests, there may be more than just a psychological component, that is, hypnosis may enhance the neuro-electrical processes involved in the placebo effect. In concolusion, hypnotherapy seems to behighly effective in treatment of LS, in professional hands, it is safe and inexpensive mode of treatment.

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