CONTROLLED TRIAL OF HYPNOTHERAPY IN THE TREATMENT OF SEVERE REFRACTORY IRRITABLE-BOWEL SYNDROME

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Summary 30 patients with severe refractory irritable-bowel syndrome were randomly allocated to treatment with either hypnotherapy or psychotherapy and placebo. The psychotherapy patients showed a small but significant improvement in abdominal pain, abdominal distension, and general well-being but not in bowel habit. The hypnotherapy patients showed a dramatic improvement in all features, the difference between the two groups being highly significant. In the hypnotherapy group no relapses were recorded during the 3-month follow-up period, and no substitution symptoms were observed.

Introduction

THE irritable-bowel syndrome (IBS) affects up to 15% of the population[1,2] and accounts for about half of referrals to gastrointestinal clinics.[3] Most of these patients will respond to a combination of spasmolytics, bulking agents, and a sympathetic explanation of symptoms.[4-6] However, up to 25% of patients show no improvement, or may deteriorate, despite multiple therapeutic interventions.[7-9]

Much attention has been paid to the application of hypnotherapy in disorders in which psychological factors are thought to be contributory,[10] and hypnosis may influence a number of physiological mechanisms not readily amenable to conscious control.[11-14] The clinical use of hypnotherapy has been the subject of only a small number of controlled trials, and claims for efficacy are largely anecdotal.[14-22] There have been no trials on the use of hypnotherapy in IBS.

The pathogenesis of IBS is unknown, but abnormal gut motility[6,23-26] and psychological factors[24,27-29] have been implicated. To eliminate the response of patients with mild IBS to simple reassurance and attention, this trial was confined to patients with longstanding refractory disease.

Patients and Methods

30 patients with severe IBS (26 women, 4 men; aged 24–53 years) were studied. IBS was defined by the presence of abdominal pain, a disordered bowel habit (diarrhoea, constipation, or alternating diarrhoea and constipation), and abdominal distension. Haematology and biochemistry were normal, and contrast radiography or colonoscopy did not show any abnormality. All patients had been under our care for at least 1 year and had not responded to any therapy (mean = 6 therapies per patient). To assess possible psychiatric disorder, all patients were asked to complete the General Health Questionnaire[30] (GHQ).

After a wash-out period of 2 weeks, patients were randomly allocated to treatment with either hypnotherapy or psychotherapy and placebo. Hypnotherapy was carried out by P. J. W. and consisted of 7 half-hour sessions of decreasing frequency over a 3-month period. Patients were given a tape for daily autohypnosis after the 3rd session. No subject proved to be unhypnotisable, and in all patients the trance was deep enough for arm catalepsy. Hypnotherapy was solely directed at general relaxation and control of intestinal motility, and no attempt was made at hypnoanalysis. Hypnosis was induced with an arm-levitation technique followed by a combination of several standard deepening procedures depending on the patient's progress and visualisation abilities. After general comments about improvement of health and wellbeing, attention was directed to the control of intestinal smooth muscle. (Before hypnosis the patient was given a simple account of intestinal-smooth-muscle physiology.) The patient was asked to place his/her hand on the abdomen, feel a sense of warmth and relate this to asserting control over gut function. Reinforcement by visualisation was used if the patient had this ability. All sessions were concluded with standard ego-strengthening suggestions.

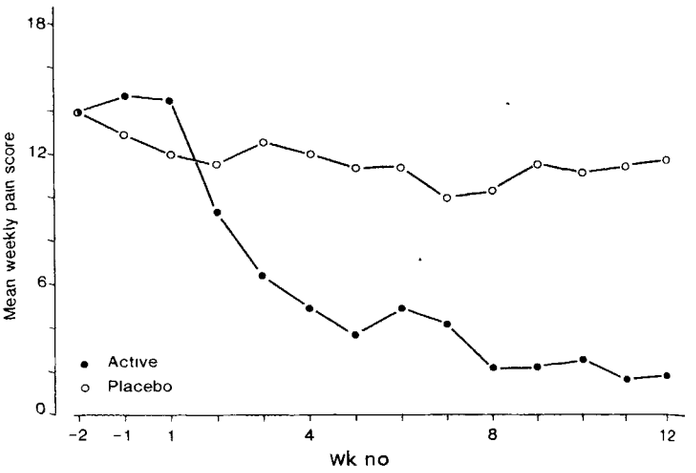

Fig 1—Change in mean weekly scores for abdominal pain during trial.

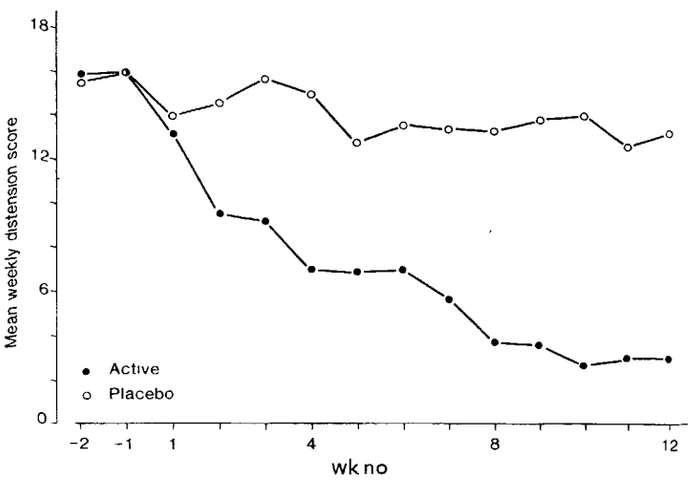

Fig 2—Change in mean weekly scores for abdominal distension during trial.

Patients in the control group received a placebo and 7 half-hour sessions of supportive psychotherapy from P. J. W. These included discussion of symptoms and an exploration of any possible contributory emotional problems and stressful life events.

All patients were independently assessed by A. P. and asked to keep a diary card, on which they recorded daily the frequency and severity of abdominal pain and abdominal distension. These were given a score of 0 = none, 1 = mild, 2 = moderate, or 3 = severe. The bowel habit was also recorded and abnormality expressed on a similar 0–3 scale. Overall improvement of symptoms and wellbeing were scored weekly on a 0–3 scale, with 0 indicating no improvement and 3 maximum improvement.

The data for 7 days were totalled, and the scores analysed separately with a repeated-measures analysis of variance.[31] Post-therapy group comparisons were made by means of the Tukey multiple-comparison test and were adjusted for pretreatment levels.

Results

At the end of treatment symptoms were either mild or absent in all 15 hypnotherapy patients. The overall changes in abdominal pain, bowel habit, abdominal distension, and wellbeing were significantly greater in the hypnotherapy group than in the control group ($p<0.0001$; figs 1–4). The

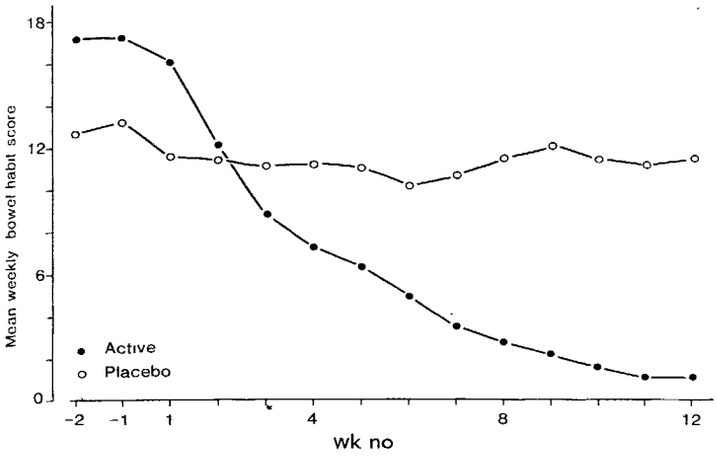

Fig 3—Change in mean weekly scores for abnormality of bowel habit during trial.

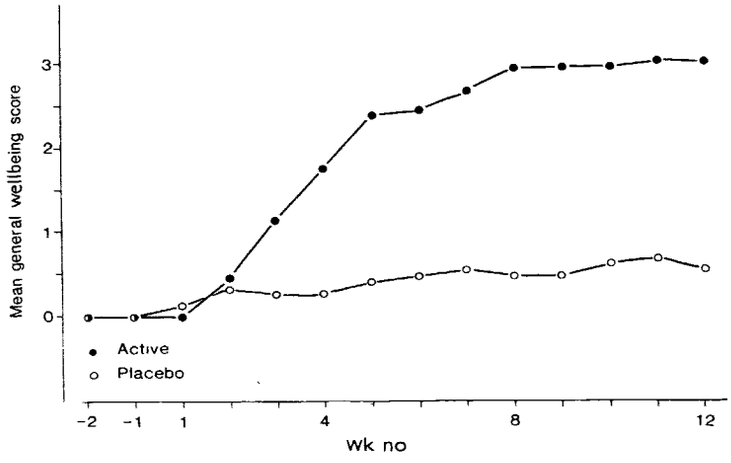

Fig 4—Change in mean weekly scores for general wellbeing during trial.

difference between the 2 groups reached significance ($p<0\cdot05$) by the 4th week of treatment for bowel habit, abdominal distension, and wellbeing and by the 5th week for abdominal pain.

The control group showed a small but significant ($p<0\cdot05$) improvement in all symptoms except bowel habit. There was no significant correlation between the GHQ scores and any improvement observed in either group.

The pretreatment symptom scores were comparable in the hypnotherapy and control groups with the exception of bowel habit, which was more severely disordered in patients receiving hypnosis. This difference reached statistical significance ($p=0\cdot005$). Both groups were comparable in terms of their GHQ scores. The duration of symptom relief has yet to be determined, but by the end of the trial (3 months) patients were receiving hypnosis on a monthly basis with no relapses.

Discussion

This study demonstrates that hypnotherapy is highly effective in the treatment of refractory IBS. A large placebo response is a feature of clinical trials in IBS, and this might be expected to be prominent in an unconventional form of therapy such as hypnosis. To minimise placebo response all patients selected for this study were those who had proved refractory to a wide variety of bulking and spasmolytic agents and had not responded in at least one previous controlled therapeutic trial.

Equal time was allocated to hypnotherapy and psychotherapy, and a placebo was given to the controls to provide a positive therapeutic component in their management.

The mechanism by which hypnotherapy acts is uncertain, but it may have a psychological effect or a direct action on gut motility. The latter is favoured by the observation in a pilot study that although wellbeing improved with hypnosis emphasising general relaxation IBS symptoms did not improve until further sessions were directed towards control of intestinal function. A similar trend was observed in this trial, but motility control was introduced at a much earlier stage. A study to measure the direct effect of hypnosis on gut motility is now in progress.

Psychotherapy is useful in the management of IBS,[33,34] but its effect in resistant cases has not been assessed. Our results suggest that hypnotherapy is a far more effective treatment.

In previous clinical trials of IBS a positive response to therapy has been confined to the patient's sense of wellbeing. An improvement in all symptoms, as found in this study,[35-41] is quite unusual, and no substitution symptoms have been observed. A 1-year follow-up is planned with hypnotherapy at 3-monthly intervals, although continuation of autohypnosis will be encouraged.

This study suggests that hypnotherapy is useful in the treatment of IBS. However, since it is time consuming, and a proportion of patients respond to simple measures, it is probably best reserved for refractory cases.

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SINGLE-DOSE KANAMYCIN THERAPY OF GONOCOCCAL OPHTHALMIA NEONATORUM

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Summary 117 infants with gonococcal ophthalmia neonatorum, including 27 with infections due to penicillinase-producing *Neisseria gonorrhoeae,* were treated as outpatients with five different regimens of single-dose intramuscular kanamycin (75 mg or 150 mg) with saline eye washes, gentamicin eye ointment, or chloramphenicol eye drops. There were no treatment failures among 68 patients treated with 75 mg or 150 mg kanamycin and gentamicin eye ointment (for 3 days). However, the minimum and maximum cumulative probabilities of cure of single-dose kanamycin with saline eye washes (for 3 days) were only 60% and 89%. 1 patient of 15 treated with 150 mg kanamycin plus chloramphenicol eye drops did not respond to treatment. Postgonococcal conjunctivitis developed in 14 (12%) infants, of whom 13 had positive cultures for *Chlamydia trachomatis.* Nasopharyngeal infection with *N gonorrhoeae* was eradicated in 9 of 11 infants colonised.

Introduction

SEXUALLY transmitted diseases and their sequelae are very common in many areas of the developing world, where perinatal infections such as congenital syphilis and ophthalmia neonatorum are still important public health problems.[1] *Neisseria gonorrhoeae* is the commonest cause of ophthalmia neonatorum in Africa, where eye prophylaxis is rarely used[2-4] (and L. F. et al, unpublished). Gonococcal neonatal conjunctivitis is a serious disease, since it may cause blindness if untreated.

The recommended treatment regimens for gonococcal ophthalmia neonatorum include multiple doses of intravenous penicillin with or without topical antimicrobial therapy and hospital admission of the infant.[5,6] Cefotaxime and gentamicin have been recommended in appropriate doses for the treatment of neonatal conjunctivitis due to penicillinase-producing *N gonorrhoeae* (PPNG).[5] However, these regimens cannot be used in many developing countries, where PPNG infections are frequent, the numbers of hospital beds and of trained personnel are limited, and expensive drugs such as third-generation cephalosporins are not available. A cheap single-dose therapy which could be given at an outpatient clinic would be better adapted to the constraints of these health-care systems.

For these reasons, and because gonococcal ophthalmia neonatorum, including PPNG infections, is common in Kenya, we evaluated a single intramuscular dose of kanamycin for the treatment of this disease in an outpatient population. Kanamycin was selected since it is available in Kenya and since a single 500 mg intramuscular dose in combination with kanamycin eye ointment was reported to be effective for the treatment of gonococcal neonatal conjunctivitis in Singapore.[7] Because of the controversy about the need to add topical antibiotics to systemic treatment for neonatal conjunctivitis,[5,6] and because systemic therapy without topical antibiotics would be a major operational advantage, the effectiveness of intramuscular kanamycin with and without gentamicin eye ointment (kanamycin eye ointment was not available) was assessed in a randomised trial.

Patients and Methods

The eyes of all infants with neonatal conjunctivitis seen in 1983 at the Nairobi Special Treatment Clinic were examined by one clinician, and the severity of conjunctivitis was scored by Sandström's method[8] on the more inflamed eye. An ophthalmia neonatorum case was defined as an infant younger than 30 days with abnormal ocular discharge from one or both eyes, and with at least one polymorphonuclear leucocyte per oil immersion field (1000×) on a gram-stained smear of the discharge.

Conjunctival swabs were cultured for *N gonorrhoeae* on modified Thayer-Martin agar, for *Chlamydia trachomatis* on cycloheximide-treated McCoy cells, for herpes simplex virus on fibroblast cells, and for facultative bacteria on blood agar. Additional specimens were obtained from the oropharynx and rectum for *N gonorrhoeae* and *C trachomatis* culture. All mothers and 74 fathers underwent genital and ocular examination, and cervical and urethral swabs were collected for *N gonorrhoeae* and *C trachomatis* culture.

Three treatment trials were conducted sequentially. In the first trial, 53 infants with gram-negative diplococci on a conjunctival smear were assigned randomly to a single intramuscular dose of 75 mg kanamycin combined with topical gentamicin eye ointment (1%) half-hourly for the first 10 h and then four times daily for 3 days (regimen A), or to a single 75 mg dose of kanamycin with saline eye washes applied in the same way and for the same time as the gentamicin ointment (regimen B). In a second study, 38 infants with gonococcal conjunctivitis were randomly assigned to a single intramuscular dose of 150 mg kanamycin in combination with gentamicin eye ointment for 3 days (regimen C) or saline eye washes for 3 days (regimen D). In the third study, 26 patients with gonococcal conjunctivitis were treated with a single intramuscular dose of 150 mg kanamycin in combination with either topical gentamicin ointment (regimen C) or chloramphenicol eye drops (regimen E), administered in the way described above. Topical treatment was administered by the mothers, who were instructed by a nurse.

Informed consent was obtained from each mother before treatment allocation. Mothers of babies with gonococcal conjunctivitis were treated at the initial visit with procaine

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