

*Invited review*

## Irritable bowel syndrome: alternative therapeutic management

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### SUMMARY

**Irritable bowel syndrome is common, ill-understood and often difficult to treat. Conventional pharmacological approaches have not yet provided adequate solutions, and understandably patients have looked outside orthodox medicine to find relief. There is a paucity of verifiable data in respect of the alternative and complementary therapies that have been embarked upon, but worthwhile studies have been performed, and it is possible to draw some conclusions based on scientific grounds. Dietary manipulation and exclusion diets can help but value from any dietary addition has yet to be confirmed. Hypnotherapy and psychotherapy (whether individual or group) are valuable in selected patients. Relaxation therapy and biofeedback techniques are probably helpful but reliable data are still awaited. Cognitive behavioural therapy is useful for some patients, but acupuncture does not seem to be effective.**

**Key Words:** Irritable bowel syndrome, Acupuncture, Hypnotherapy, Alternative therapy, Complementary therapy

### INTRODUCTION

Irritable bowel syndrome (IBS) is a very common medical problem, affecting between 5% and 13% of Western populations; it is approximately twice as common in women as in men.<sup>1</sup> Although not responsible for death or catastrophic complications, it has a major impact on the quality of life in affected individuals, and more than 40% report marked avoidance of their activities. In North America IBS is second only to the com-

mon cold as a cause for taking time off work. IBS is accordingly the commonest gastrointestinal disorder seen both by general practitioners and by gastroenterologists. If combined with the other related functional disorders such as non-ulcer dyspepsia<sup>2</sup> IBS accounts for about 40% of all new gastrointestinal referrals.

The current treatment for IBS is sub-optimal. The sheer breadth of therapeutic options to be considered indicates that none is yet approaching an ideal, and it is clear that there is no curative measure. Most expert authors stress the importance of a full explanation of the nature of the condition, and confident reassurance of the patient. This is evidently less than straightforward when those same experts are unable to define the condition, form an unequivocal positive diagnosis, explain its pathogenesis, or provide effective therapy. Nonetheless it is most unusual for a confident IBS diagnosis to prove erroneous with the passage of time, and the overall prognosis is good.<sup>1</sup>

Active management typically commences with advice on dietary manipulation, and there is reasonably good evidence for benefit from high fibre diets and/or fibre supplements for patients with predominant constipation associated with their IBS, and for some patients with the alternating varieties in which constipation is sometime a feature. Fibre, however, is usually ineffective in those without constipation, and will often aggravate sensations of bloating and distension. Other dietary measures can be effective in some individuals and there is an extensive list of foods that are relatively frequently implicated as adverse factors. Lactose intolerance is sufficiently well-defined and important enough to consider this a condition in its own right, and around 10% of Caucasian patients with apparent IBS will respond to limitation of milk intake on this basis,<sup>1</sup> but there are many other patients with IBS who find that milk and milk products are associated with worse symptoms. Wheat products also are frequently implicated. Piecing together the other most

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commonly identified foods has enabled the enthusiasts in this area to provide IBS diets and formal exclusion diet strategies that are clearly of help to some patients.<sup>3</sup> Unfortunately the vigour of both therapist and patient has to be considerable to achieve the best possible results.

Over the years numerous pharmacological agents have been considered for IBS, and until very recently there has been no good reason to disagree with Klein's view that there was little if anything to offer that was better than placebo in this notoriously placebo-responsive condition.<sup>4</sup> Simple drugs such as anti-diarrhoeal agents and "anti-spasmodics" for pain are generally ineffective.<sup>1</sup> Nonetheless, there is consistent benefit to be had from the use of antidepressants (both conventional tricyclic types and the more selective serotonin specific agents),<sup>1</sup> and recent advances in our understanding of the parallel serotonergic circuits in the gastrointestinal innervation are beginning to yield worthwhile therapeutic gains. It is clear that modulation of both 5HT<sub>3</sub> and 5HT<sub>4</sub> receptor subtypes can be helpful for selected patients.<sup>5,6</sup> There are however problems with unexpected toxicity, or anxieties that this may occur, and the incremental benefit over the placebo response for both alosetron and tegaserod is probably only in the order of 15%.

A place for alternative and complementary therapies therefore exists and is likely to remain for some time - if not indefinitely.

### ***Food-based interventions***

The list of foods and food-derived compounds suggested to be therapeutic in IBS is lengthy and includes aloe vera, rhubarb, peppermint, ginger, and a variety of other herbal remedies. Unfortunately although the scientific literature is replete with studies addressing (with variable success) the value of eliminating different food-stuffs there are no reliable data in respect of therapeutic additions, with the exception of peppermint for which there is good evidence that it is ineffective in IBS.<sup>7</sup> The case for food additions must therefore remain an open one for the time-being. It is probable that as more is understood of the (potentially abnormal) gut flora in IBS there will be formal evaluations of a variety of agents employed as prebiotics.

### ***Relaxation therapy***

Working from the premise that IBS is heavily influenced by "stress" (however this is defined) it has been logical to examine whether non-pharmacological strate-

gies might be effective. The usual method is to teach the patient to avoid stressful situations as best possible and to provide a relaxation audiotape for regular listening. There are only three studies to support this, and each of them has its limitations in terms of size, power and appropriate control group.<sup>8-10</sup> The apparent logic, simplicity, safety and low cost of this approach permit one's cautious endorsement.

### ***Biofeedback***

Biofeedback techniques provide patients with some measure of visceral function permitting them to begin to link this with disturbed perception. There has as yet been no published study of any specific biofeedback technique for IBS itself. However there is an interesting self-directed, computer-based approach being pioneered at the Royal Free Hospital in London for which the anecdotal outcomes are good.<sup>11</sup> Patients with idiopathic constipation form a group with considerable overlap with those with IBS, and this group also shows a response statistically better than in placebo controls when exposed to anorectally-orientated biofeedback supervised by (mainly) nurse practitioners.<sup>12</sup> It is probable that the time spent with the practitioner and the emphasis on normal physiology play an important part in the good results. A study specific to IBS in which relaxation, thermal biofeedback, and cognitive therapy together were compared to an attention-placebo control (pseudo-meditation) showed no additional benefit, strongly implying that overall gain was from the level of attention and support.<sup>13</sup>

### ***Hypnotherapy***

The hypnotic trance can be induced in most subjects, and it has been used with therapeutic intent in patients with IBS. It is assumed that gut-directed hypnotherapy can modify gut motility and/or visceral sensation and thus lead to relief of symptoms. Typically patients are taught how to induce a form of self-hypnosis for continued treatment outside sessions with the therapist. It has proved significantly more effective than providing comparable therapist contact time spent discussing emotional problems and stress.<sup>14</sup> There is however a substantial need for therapist time which has led to another group examining group hypnotherapy and finding similar (but not adequately controlled) results for individual and group interventions.<sup>15</sup> Following a pilot study of a specially devised audiotape encompassing explanation, reassurance, and the beginnings of autohypnosis, which appeared to show an advantage over conventional measures, we compared this tape with formal individual hypnotherapy.<sup>10</sup> Patients with resistant IBS who had been symptomatic

for a median of 60 months were selected. Randomisation was to 6 sessions of individual hypnotherapy or the tape; standard symptom scores and psychological questionnaires were employed to assess the outcomes. Compliance was good, and symptom scores improved in 76% of the hypnotherapy patients compared to 59% of the tape patients (NS). There was a greater reduction in median score than in the tape patients ( $p < 0.05$ ), but an independent assessor considered 52% in each group improved. Interestingly, those who were initially more anxious were both more compliant and more likely to respond. We felt that the ease and economy of tape use recommended it as an option in IBS, reserving hypnotherapy for failures.

### ***Cognitive Behavioural Therapy***

The rationale behind cognitive behavioural therapy (CBT) is that IBS is in part a response to adverse life events, and that altered interpretation of unacceptable visceral sensations can be achieved once it is recognised that they are reactive to those life events. Fundamental to its implementation is the concept that the patient takes some responsibility for the illness and its management. There are only two small studies in IBS, but the results have been encouraging, with reductions in abdominal pain, diarrhoea, constipation, belching, and nausea for up to 3 months.<sup>16,17</sup>

### ***Psychotherapy***

As with cognitive behavioural therapy there is an assumption in considering psychotherapy that IBS is in part the result of important life events and especially those relating to other individuals, perhaps on a background of insecurity. Recognition of this (insight) by the patient is integral to its efficacy. Three trials of psychotherapy for resistant IBS have been positive, with benefits accruing to over 60% of individuals, particularly in respect of abdominal pain and altered bowel habit.<sup>18-20</sup> As with hypnotherapy the commitment in time for both patient and therapist is substantial. Interestingly female patients and those with overt psychiatric symptoms seem to do better with psychotherapy.

### ***Acupuncture***

Acupuncture has become a popularly promoted therapy for IBS in complementary circles, but until recently there has been no clear scientific evidence for or against. Acupuncture has been shown to outperform placebo in a number of conditions but IBS was not included in a NIH review of conditions for which benefit could be demonstrated. With appropriate caution and universal use

of new needles acupuncture is not obviously harmful, and success rates of around 70% are anticipated by its protagonists.

A controlled trial was therefore devised. This employed sham acupuncture in comparison to traditional Chinese methodology. After an assessment by the gastroenterologist, a "diagnosis" and a treatment plan were devised by a first acupuncturist. The patient was then randomised to real or sham treatment by a second acupuncturist who was the only one of the study team to know the allocation. Active patients were treated according to the meridian-based technique in which there is manipulation or removal of blocking of the "Qi". Typically 4 to 6 needles are needed to achieve "deqi" which takes from a few moments up to about 25 minutes. No deqi was sought (or achieved) in sham treatments in which needles were placed at random (non-meridian) points. This cycle was repeated at each of 6 weekly visits. The prior expectation was that 70% of actively treated patients would respond compared to an estimated 30% response rate for placebo therapy. The primary end-point was a symptom score reduction of at least 3 points for which the study had 60% power to detect 30% difference (ie 30 to 60%). Various secondary end-points including quality of life score, and change in anxiety and depression state were also measured. There was good balancing for confounding factors and compliance was excellent. There was a symptom score fall of greater than 3 points in 41% of actively treated patients compared to 31% of the sham group (NS) with a slightly greater fall in the mean symptom score (from 13.5 to 11.6 compared to 13.1 to 11.2;  $p < 0.05$ ), but achievement of any reduction in symptom score was commoner in the sham group, and other parameters revealed no differences between the two arms of the study. It has therefore been concluded that acupuncture is ineffective in the majority of patients with IBS and that seeking new resources to incorporate acupuncture into the medical care of these patients is not justifiable.<sup>21</sup>

## **CONCLUSIONS**

Until the aetiology and pathogenesis of irritable bowel syndrome is more completely understood there will continue to be the potential for a range of interpretations of patients' symptoms and a wide range of recommendations in respect of their treatment. Prompt diagnosis and explanation of the low risks and good prognosis associated with the condition will continue to be important. It is always worth considering dietary manipulation but with the recognition that short of very exacting exclusion di-

ets this will usually be a modest modification of intake and with similarly modest benefit. Increased dietary fibre is valuable for only a minority of constipated IBS patients. There is scientific support for gain from the establishment of a good interpersonal relationship between the therapist and the patient whatever the principal discipline of that therapist. There is limited support for use of relaxation techniques and it is probable that forms of biofeedback will help some patients. Hypnotherapy and psychotherapy are valuable for selected patients, but it does not appear that acupuncture has a role.

## REFERENCES

1. Jones J, Boorman J, Cann P, Forbes A, Gomborone J, Heaton K, et al. Guidelines for the management of irritable bowel syndrome. *Gut* 2000; 47(Suppl 2):1-19.
2. Drossman DA, Corazziari E, Talley NJ, Thompson WG, Whitehead WE. Rome II: a multinational consensus document on functional gastrointestinal disorders. *Gut* 1999; 45:(Suppl II): 1-81.
3. Jones VA, Shorhouse M, Hunter JO. Food intolerance: A major factor in the pathogenesis of irritable bowel syndrome. *Lancet* 1982; 2:1115-1117.
4. Klein KB. Controlled treatment trials in the irritable bowel syndrome: A critique. *Gastroenterology* 1988; 95:232-241.
5. Camilleri M, Northcutt AR, Kong S, Dukes GE, McSorley D, Mangel AW. Efficacy and safety of alosetron in women with irritable bowel syndrome: a randomised, placebo-controlled trial. *Lancet* 2000; 355:1035-1040.
6. Muller-Lissner SA, Fumagalli I, Bardhan KD, Pace F, Pecher E, Nault B, Ruegg P. Tegaserod, a 5-HT(4) receptor partial agonist, relieves symptoms in irritable bowel syndrome patients with abdominal pain, bloating and constipation. *Aliment Pharmacol Ther* 2001; 15:1655-1666.
7. Nash P, Gould SR, Barnardo DE. Peppermint oil does not relieve the pain of irritable bowel syndrome. *British Journal of Clinical Practice* 1986; 40:292-293.
8. Blanchard EB, Greene B, Scharff L, Schwarz-McMorris SP. Relaxation training as a treatment for irritable bowel syndrome. *Biofeedback Self Regul* 1993; 18:125-132.
9. Voirol MW, Hipolito J. [Anthropo-analytical relaxation in irritable bowel syndrome: results 40 months later]. *Schweiz Med Wochenschr* 1987; 117:1117-1119.
10. Forbes A, MacAuley S, Chiotakou-Faliakou E. Hypnotherapy and therapeutic audiotape: effective in previously unsuccessfully treated irritable bowel syndrome? *Int J Colorectal Dis* 2000; 15: 328-334.
11. Leahy A, Epstein O. Non-pharmacological treatments in the irritable bowel syndrome. *World J Gastroenterol* 2001; 7:313-316.
12. Chiotakou-Faliakou E, Kamm MA, Roy AJ, Storrie JB, Turner IC. Biofeedback provides long-term benefit for patients with intractable, slow and normal transit constipation. *Gut* 1998; 42:517-521.
13. Blanchard EB, Schwarz SP, Suls JM, et al. Two controlled evaluations of multicomponent psychological treatment of irritable bowel syndrome. *Behaviour Research & Therapy* 1992; 30:175-189.
14. Whorwell PJ, Prior A, Faragher EB. Controlled trial of hypnotherapy in the treatment of severe refractory irritable-bowel syndrome. *Lancet* 1984; 2:1232-1234.
15. Harvey RF, Gunary RM, Hinton RA, Barry RE. Individual and group hypnotherapy in treatment of refractory irritable bowel syndrome. *Lancet* 1989; 1:424-425.
16. Greene B, Blanchard EB. Cognitive therapy for irritable bowel syndrome *Journal of Consulting & Clinical Psychology* 1994; 62:576-582.
17. Payne A, Blanchard EB. Controlled comparison of cognitive therapy and self-help support groups in the treatment of irritable bowel syndrome. *Journal of Consulting & Clinical Psychology* 1995; 63:779-786.
18. Guthrie E, Creed F, Dawson D, Tomenson B. A controlled trial of psychological treatment for the irritable bowel syndrome. *Gastroenterology* 1991; 100:450-457.
19. Guthrie E. Brief psychotherapy with patients with refractory irritable bowel syndrome. *British Journal of Psychotherapy* 1991; 8:175-188.
20. Svedlund J, Sjodin I, Ottosson J, Dotevall G. Controlled study of psychotherapy in irritable bowel syndrome. *Lancet* 1983; 2:589-592.
21. Forbes A, Jackson S, Walter C, Quaraishi S, Jacyna M, Pitcher M. Acupuncture for irritable bowel syndrome: a blinded placebo-controlled trial. *Gut* 2002; 50:(Suppl II); A83.