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IRRITABLE BOWEL SYNDROME: SYMPTOMATIC TREATMENT VERSUS INTEGRATIVE PSYCHOTHERAPY

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Abstract

Irritable bowel syndrome (IBS) is a functional gastrointestinal (GI) disorder thought to affect 10% to 20% of the population worldwide. Essentially the paper is in two parts. The first part of the paper investigates the world literature and a variety of up to date treatment approaches which, with the exception of cognitive-behavioural therapy (CBT) which also has beneficial effects on patients' overall mood and bloating, are designed to manage individual symptoms of IBS. The review examines the efficacy of pharmaceutical agents (antispasmodics, antidepressants, antidiarrhoeals and the new serotonergic modifying agonists/antagonists), dietary control (fibre, lactose free products, partially hydrolyzed guar gum, peppermint oil, prebiotics and probiotics), CBT (with or without the use of an audiotape) and the standard gut-directed hypnotherapy approach of the Manchester Model.

In the second half, in sharp contrast to the symptomatic treatments, the authors give a detailed account of a 54-year-old female patient with refractory IBS in a setting of a phobic anxiety state. The treatment approach – a combination of psychotherapy and hypnosis – was designed to effect a complete recovery rather than to manage individual symptoms. This case study exemplifies the complex nature of IBS symptoms in relation to the patient's emotions. It was necessary for her to work through these emotional problems so that she did not need to express her intense hostility through her bowels. These problems were expressed both in the psychotherapy sessions as well as in the hypnotherapy. The patient made a full recovery and this was maintained at the follow-up a year later.

Key words: hypnoanalysis, integrative psychotherapy, gut directed therapy, river metaphor, symptomatic treatment

Introduction

Irritable bowel syndrome (IBS) is a common gastrointestinal (GI) disorder and accounts for up to 20% of the population in the United States (Brandt, Locke, Olden, Quigley, Schoenfeld, Schuster and Talley, 2002), while similar results are found in the United Kingdom (Kennedy, Jones, Darnley, Seed, Wessely and Chalder, 2005). Patients complain of a variety of symptoms which include constipation, diarrhoea, bloating, abdominal pain, frequency and urgency of defecation. There are two main diagnostic criteria that have been used for research and in clinical studies: the Manning criteria and the Rome Classifications (I, II and III). Although the recent Rome III Classification system

has introduced IBS-M (mixed symptoms) and IBS-U (undefined symptoms), some clinicians may, nevertheless, still find it useful to use the earlier IBS sub-divisions:

IBS-C = constipation-predominant
IBS-D = diarrhoea-predominant
IBS-A = alternating constipation and diarrhoea
IBS-O = other abdominal symptoms

For the purposes of this paper, the authors have retained these earlier subdivisions for simplification.

In 1978, Manning and his colleagues devised criteria which distinguished IBS from organic diseases of the gastrointestinal tract (Manning, Thompson, Heaton and Morris, 1978). They devised a questionnaire involving fifteen symptoms relating to bowel functioning, and they were as follows:

1 Looser stools at onset of pain
2 More frequent bowel movements at onset of pain
3 Pain eased after bowel movement (often)
4 Visible distension
5 Feeling of distension
6 Mucus per rectum
7 Feeling of incomplete emptying (often)
8 Bowel movement before breakfast
9 Nocturnal bowel movement
10 Urgency of defecation
11 Pain worse after bowel movement
12 Pain eased with flatus
13 Greater than or equal to two bowel movements between meals
14 Harder stools at onset of pain
15 Less frequent bowel movements at onset of pain

Since that time, more detailed classification systems have been introduced into the literature, at first Rome I and then Rome II. More recently, a simpler system (Rome III) was introduced in April 2006 by the American College of Gastroenterology Functional Disorders Task Force (American Gastroenterological Association, 2006), the main difference being that there is increased precision in the required frequency of particular symptoms for diagnosis. For a more detailed description of the Rome III criteria see Drossman (2006).

Use of medication in the treatment of IBS

In this section, we are going to review the use of medication in the treatment of IBS and this falls into four main categories: (1) antispasmodics, (2) antidepressants, (3) antidiarrhoeal agents and (4) serotonergic modifying drugs. Essentially, these drugs are used in an attempt to reduce the severity of individual symptoms.

Antispasmodics

Antispasmodics are particularly helpful for those patients suffering from IBS where abdominal pain is the predominant feature. These patients have a dysfunction of smooth muscle activity associated with visceral hypersensitivity (Schoenfeld, 2005): the effect

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Table 1. Antispasmodics

Name of medication	Notes
Dicyclomine (US) (Dicycloverine Hydrochloride in the UK)	Used in the UK and the US; prescribed by GPs; used in clinical trials (Wheatley, 1976)
Hyoscyamine (US) (Hyoscine Butyl Bromide in the UK)	Used in the UK and the US; prescribed by GPs often in extreme cases; used in clinical trials (Ritchie and Truelove, 1979)
Atropine (UK)	Used in the UK by GPs
Mebeverine (UK)	Widely used in the UK; used in clinical trials (Kennedy et al., 2005)
Others include Pinaverium, Cimetropium Bromide, Trimebutine, Pirenzepine and Otilium Bromide (US)	Used in clinical trials. Cimetropium Bromide (Piai, Visconti, Imbimbo, Minieri, Sollazzo and Mazzaca, 1987)

Note: The references given in Tables 1–5 are samples of clinical studies only rather than a complete list.

of the antispasmodics is to reduce intestinal motility, alleviating pain in the abdomen. There have been many trials which have assessed the efficacy of antispasmodic agents in the treatment of IBS (see Table 1), and the consensus of opinion is that antispasmodics are of questionable value.

In the UK, Kennedy and colleagues (2005) carried out a controlled study comparing the effectiveness of mebeverine, used in conjunction with CBT, with mebeverine on its own. Of the 149 patients found to be suitable for the investigation, randomly, 72 of these were allocated to the mebeverine/CBT group and 77 to the mebeverine only group. Those patients in the mebeverine/CBT group were shown to have had a greater symptomatic improvement and, although there were inconsistencies in the results of the hospital anxiety and depression scale, there were significant improvements as measured by the work and social adjustment scales. Frequently used antispasmodics have been listed in Table 1. It is important to note that patients who suffer from postprandial pain would be well advised to take the antispasmodic before meals (Poynard, Regimbeau and Benhamou, 2001).

Antidepressants

It is well known that tricyclic antidepressants (TCAs) are useful for relieving pain and it was for this reason that they were introduced for the treatment of IBS: it has been shown that low doses of tricyclic antidepressants reduce abdominal pain in these patients (Lembo and Rink, 2002). Drossman and colleagues (2003) carried out a randomized controlled trial in which they compared the use of desipramine versus placebo in 216 patients. In the analysis of the data, it was shown that there were no significant differences between the placebo and desipramine groups; however, further analysis revealed that patients with IBS-D benefited, whereas patients with IBS-C failed to improve. Presumably the drying quality of the medication was responsible for this difference. As a result, these authors reserve the tricyclic antidepressants for patients suffering from IBS-D and combine this with loperamide (Imodium). In addition, Schoenfeld (2005) concluded from his clinical work that tricyclic antidepressants improved global IBS symptoms in patients with IBS-D.

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Table 2. Antidepressants

Name of medication	Notes
Desipramine (US)	Not available in the UK in 2007; used in clinical trials (Greenbaum and colleagues, 1987)
Trimipramine (US and UK)	Trade name 'Sumontil'; used in clinical trials (Myren, Groth, Larssen and Larsen, 1982)
Doxepin (US and UK)	Available in UK and US; used in clinical trials (Vij, Jiloha, Kumar, Madhu, Malika and Anand, 1991)
Amitriptyline (US and UK)	Widely used and prescribed by GPs; used in clinical trials (Steinhart, Wong and Zarr, 1981)
(+ SSRIs and SNRIs)	Other antidepressants that have been used include Paroxetine (an SSRI) and newer monoamines such as the serotonin noradrenaline re-uptake inhibitors (SNRIs) – Duloxetine (US and UK) and Venlafaxine (US and UK).

There have also been several studies which have evaluated the use of SSRI drugs in the treatment of IBS; SSRIs are also used by doctors in clinical practice for those patients with concomitant depression. Tack, Broekaert, Fischler, Van Oudenhove, Gevers and Janssens (2006), in a randomized controlled trial (n = 23), used citalopram and compared this with placebo, excluding any patients with a primary depressive disorder. Although Creed (2006) pointed out that there were several methodological errors in this study, nevertheless it was shown that, as far as abdominal pain was concerned, citalopram was superior to placebo, although it had no effect on changes in mood, stool pattern or rectal distension.

Antidiarrhoeal agents

A number of studies (Cann, Read, Holdsworth and Barends, 1984; Hovdenak, 1987; Efskind, Bernklev and Vatn, 1996) have been carried out using the antidiarrhoeal agent, Loperamide (Imodium), and results have indicated that this drug has been an effective treatment for patients suffering from diarrhoea, particularly those who have no associated abdominal pain. Loperamide decreases stool frequency, reduces the percentage of unformed stools and diminishes urgency. It reduces diarrhoea symptoms by slowing intestinal transit, increasing the absorption of water and ions and also by strengthening the anal sphincter tone (Johanson, 2004).

Serotonergic modifying drugs

Alosetron hydrochloride is a 5-hydroxytryptamine receptor (5-HT3) antagonist and is helpful in treating female patients suffering from IBS-D. Alosetron is not frequently used

Table 3. Antidiarrhoeal medication

Name of medication	Notes
Loperamide (US and UK)	Trade name is Imodium; widely used; used in clinical trials (Efskind, Bernklev and Vatn, 1996)

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Table 4. Serotonergic agonists/antagonists

Name of medication	Notes
Alosetron (US)	Alosetron is a 5-hydroxytryptamine receptor antagonist and has been used in trials (Cremonini, Delgado-Aros and Camilleri, 2003). The drug is used to control diarrhoea-predominant IBS.
Tegaserod (US)	Tegaserod is a 5-hydroxytryptamine selective receptor agonist. Used in clinical trials (Novick, Miner, Krause et al., 2002). See also abstract (Whorwell, Krumholz, Müller-Lissner, Schmitt, Dunger-Baldauf and Ruegg, 2000). The drug is used to control constipation-predominant IBS.
Other drugs include mianserin (US) and Buspirone (US)	

in clinical practice. It is available in the US and is marketed as Lotronex; however, doctors have been advised to prescribe this drug only after other more traditional treatments have failed. Alosetron is not available in the UK. The controlled trials indicate that Alosetron decreases gut transit, increases the absorption of fluid and also reduces pain in response to rectal distension. Alosetron thus alleviates not only the diarrhoea but also reduces other associated symptoms including abdominal pain and urgency. However, there are a number of adverse side effects; in particular it may give rise to constipation. At least 1% of the subjects reported that they had suffered from some side effects including constipation, nausea or abdominal pain; in addition, 0.1% of women experienced either severe constipation or ischaemic colitis necessitating hospitalization. It was for these reasons that the drug was withdrawn from the US market only to be reintroduced in 2002. Alosetron should only be prescribed for female patients who have not responded to standard forms of pharmacological treatment, and careful monitoring is recommended. The Food and Drug Administration (FDA) has warned that Alosetron has serious risks. The recommended dose for Alosetron is 1 mg twice a day.

Tegaserod is a selective 5-hydroxitryptimine receptor agonist which is indicated for female patients suffering from IBS-C. This form of treatment may be considered for patients who have failed to respond to standard laxatives. Tegaserod is available in over 30 countries including the US but it is not available in the UK. The trade name for Tegaserod in the US is Zelnorm. The effect of this drug is to accelerate gastrointestinal transit, and also to increase fecal water and intestinal secretion (Johanson, 2004; Farthing, 2004). In addition, Tegaserod reduces the afferent nerve impulses from the intestines which, in turn, reduce visceral hypersensitivity (Camilleri, 2001). There have been three main randomized, double-blind, placebo-controlled trials in which the use of Tegaserod was compared with placebo in patients suffering from IBS-C (Müller-Lissner, Fumagalli, Bardhan, Pace, Pecher, Nault and Rüegg, 2001; Novartis Pharmaceuticals Corporation, 2002; Novick, Miner, Krause, Glebas, Bliesath, Ligozio, Rüegg and Lefkowitz, 2002). These studies have shown that there is a statistical difference between patients treated with Tegaserod when compared to placebo: not only was there an improvement with regard to constipation and abdominal pain, but also, in two of the studies (Müller-Lissner, Fumagalli, Bardhan et al., 2001; Novick, Miner, Krause et al., 2002), where 6 mg was administered twice daily over a 12 week period, there was global improvement including frequency, stool consistency and bloating. However, the main adverse affect of this drug is diarrhoea which, in extreme cases, leads to dehydration.

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The FDA in the US has warned the public that there are risks associated with this drug. On 30 March, 2007, the US FDA decided to withdraw Zelnorm, alleging that there was a link between prescriptions of the drug and heart attack or stroke.

Diet control

Patients with IBS often ask for dietary advice. It has been suggested by Floch and Narayan (2002) that it is helpful to exclude lactose containing products from the diet in order to establish whether this is the sole cause of the symptoms. There are many foods that contain lactose, particularly milk and milk products. There is also a group of patients who react adversely to fructose or Sorbitol. Floch and Narayan also recommend that caffeine-containing products such as chocolate, tea, coffee, cocoa and many fizzy drinks – especially colas – should be removed from the diet as caffeine is a gut stimulant. In addition, other foods which are likely to give rise to hypersensitivity include eggs, soybeans and cashew nuts.

Fibre

It is a commonly held belief that fibre has a beneficial effect on global symptoms (Alpers, 2006; Zuckerman, 2006). The rationale for adding fibre to the diet is that it produces softer and bulkier stools, it promotes colonic peristalsis and eases defecation; in addition, it is thought to accelerate the transit time in the gastrointestinal tract. Based on the premise that many IBS patients suffer from fibre depletion, doctors in clinical practice often introduce additional fibre into patients' diets to ensure that they have a daily intake of 25 g. Fibre, essentially consisting of polysaccharides which cannot be hydrolyzed by human enzymes, can be found in many food stuffs such as cereals, nuts, beans, vegetables and fruits (Floch and Narayan, 2002). The highest amount of fibre can be found in cereals such as All Bran© and Wheat Bran©, and in kidney beans and black-eyed beans, whereas lower amounts are present in vegetables, fruits and nuts.

Guar gum, a soluble fibre, is a mucilage taken from the Indian cluster bean (Cyamopsis tetragonolobus) and is used in food processing as a thickener and an emulsion stabilizer; it is also used in ice cream, cheese and processed cold meat. Although rarely used in clinical practice, Partially Hydrolyzed Guar gum (PHGG) is indicated for the treatment of patients who suffer from IBS-C; it reduces constipation and also has a beneficial effect on global IBS symptoms (Giannini, Mansi, Dulbecco, Savarino, 2006). The advantage of supplementing the diet with soluble fibre is that it not only hydrolyzes the stool but also promotes bacterial growth in the colon (Stephen and Cummings, 1980). Further, PHGG reduces gas production which, in turn, has the effect of reducing bloating: this supplement is available in powder form, and it is recommended that one teaspoon be added to eight ounces of fluid one to three times a day. It has also been shown that PHGG has been effective in the treatment of patients suffering from IBS-D: Homann, Kemen, Fuessenich, Senkal and Zumtobel (1994) found that patients who received 20 g of PHGG by enteral nutrition had significant decreases in diarrhoea, while the control group, who were given a non-supplemented enteral diet, continued to experience symptoms.

Peppermint oil

Peppermint oil is a naturally occurring carminative – a medicinal drug with antispasmodic qualities – which relaxes gastrointestinal smooth muscle (Rees, Evans and Rhodes,

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1979). Peppermint oil is taken from the leaves and flowering tops of the peppermint plant (*Mentha x piperita*), its primary active component being menthol. Recent studies have shown that peppermint oil may be a simple and effective treatment for patients suffering from IBS. Kline, Kline, Di Palma and Barbero (2001) carried out a randomized, double-blind controlled trial on 42 children suffering from IBS: one group was given enteric-coated peppermint oil capsules and the other group, placebo. After two weeks, it was shown that 75% of the children who had taken the peppermint oil had a significant reduction in abdominal pain. Favourable results were also found in an earlier study (Liu, Chen, Yeh, Huang and Poon, 1997) in which 110 adults were randomly allocated to either Colpermin (consisting of enteric-coated capsules of peppermint oil), or placebo. The results of this study showed that the peppermint oil group compared favourably to placebo with regard to severity of abdominal pain (79% compared to 43%), abdominal distension (83% compared to 29%), reduced stool frequency (83% compared to 32%), reduced borborygmi (73% compared to 31%) and flatulence (79% compared to 22%). It is important to note that peppermint oil should be taken in the form of an enteric-coated capsule because the peppermint oil must not be released in the stomach. If this should happen, for example if the patient chews the capsule, this may well lead to heartburn due to the relaxation of the oesophageal sphincter.

Prebiotics

Prebiotics are defined as a group of non-digestible or partially digestible food ingredients which selectively promote the growth of colonic bacteria, in particular lactic acid bacteria and a group of gram-positive anaerobic bacteria known as bifidobacteria (Tuohy, Probert, Smejkal and Gibson, 2003). They favourably influence the balance of the intestinal microflora (Van Loo, 2004). Most prebiotics are carbohydrates (oligosaccharides, for example) and may be found in unrefined wheat, unrefined barley, soybeans and Jerusalem artichokes. Prebiotic oligosaccharides may be added to processed foods and are also marketed in tablet form.

Probiotics

The World Health Organization and the Food Agricultural Organization of the United Nations define probiotics as, 'live micro-organisms which when administered in adequate amounts confer a health benefit on the host' (FAO/WHO Working Group Report, 2002). The normal microbial community in the gut consists of anaerobes including Bifidobacterium, Clostridium, Lactobacillus, Peptococcus and many others. These organisms counteract toxins and digest dietary products, but, perhaps their most important function is that they provide a defence against the colonization of pathogenic organisms (Young and Cash, 2006). Recently, probiotics have been added to cereal products and a large number of yoghurts; they can also be found in some vitamin preparations.

The value of probiotics in the treatment of IBS has been evaluated in several recent studies (Niedzielin , Kordecki and Birkenfeld, 2001; Whorwell, Altringer, Morel, Bond, Charbonneau, O'Mahony, Kiely, Shanahan and Quigley, 2006). In a recent study carried out by O'Mahony and colleagues (2005) two probiotics were compared with placebo in a randomized, double-blind trial. There were 77 patients in all. The patients were given Lactobacillus, Bifidobacterium or placebo, and while the patients receiving Lactobacillus showed no significant change when compared with placebo, the group who received Bifidobacterium made considerable improvement with regard to abdominal pain/discomfort, bloating/distension and bowel movement.

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Cognitive-behavioural therapy and irritable bowel syndrome

Early studies (Bennett and Wilkinson, 1985; Shaw, Srivastava, Sadlier, Swann, James and Rhodes, 1991) have demonstrated the efficacy of cognitive-behavioural therapy (CBT) for the treatment of IBS. Lynch and Zamble (1989**)** in a randomized controlled trial (n = 24) compared a CBT group (using strategies including coping skills, assertiveness training, education and progressive muscle relaxation) with a waiting control group. The results showed that the CBT group improved significantly when compared with placebo. In an important, randomized study (Toner, Segal, Emmott, Myran, Ali, DiGasbarro and Stuckless, 1998), and one of the largest to date, 101 IBS patients were assigned to one of three groups: CBT (cognitive behaviour and relaxation), attentional-placebo control (psychoeducational group) and a group who received conventional medical treatment. It was shown that patients' depressive symptoms and bloating were significantly improved in the CBT group when compared to the other control groups. In addition, patients in the CBT group rated the treatment as being more effective than the psychoeducational group as measured by Toner and colleagues' Satisfaction Scale (Toner, Stuckless, Ali, Downie, Emmott and Akman, 1998).

Hypnosis and psychological factors in IBS research

The use of antispasmodics, laxatives, antidiarrhoeal agents and even the more recently produced serotonergic receptor modifying drugs are considered, along with dietary modification, first line treatments in the Manchester Model. Whorwell (2006) recommends that hypnotherapy should be reserved for the treatment of refractory cases after simple measures have failed to alleviate symptoms.

Many studies have used the gut-directed hypnotherapy approach as pioneered by Whorwell, Prior and Faragher (1984). The Manchester Unit, which focuses on the use of hypnotherapy in the treatment of IBS, was founded by Whorwell in 1995. The Manchester Model has now become the standard approach for IBS treatment; an in depth account of this model, together with instructions for use, can be found in Gonsalkorale (2006), and an extensive list of controlled studies in Gholamrezaei, Ardestani and Emami (2006). Essentially, the model consists of 7 to 12 sessions of hypnotherapy each of 30–60 minutes duration. The treatment involves induction, deepening, guided imagery, use of metaphors (such as the river), and direct application of hand warmth on the abdomen. The tree metaphor has also been used to represent strength and solidity: this image has been used successfully to counteract the stresses of every day life (Zimmerman, 2003). One of the important aims of this form of treatment is that, having learnt self-hypnosis, patients are able to exercise control over their bowel function (Gonsalkorale, 2006). They are also given some education about normal gut function and visceral hypersensitivity. The majority of patients treated in this way have shown a remarkable improvement with regard to their symptomatology and quality of life. In many individuals, hypnosis has reduced anxiety and depression and this, in turn, has had a beneficial effect on global IBS symptoms (Gholamrezaei et al., 2006).

Zimmerman (2003) described the successful treatment of a 50-year-old, female patient who had had a one year history of IBS. This case study illustrates the use of the river as a metaphor. In the first two sessions, the author explained the nature of the treatment and taught her self-hypnosis. Further, he described to her the use of the guided imagery which would assist her relaxation and improve her self control. In the third session, after induction and deepening using a guided imagery approach, the patient was

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Table 5. Diet supplements: diet change, fibre, laxatives, prebiotics and probiotics

Medication/Supplement	Notes
Psyllium (US)	Soluble fibre, a bulk laxative; used in clinical trials (Longstreth, Fox, Youkeles, Forsythe and Wolochow, 1981)
Ispaghula husk (US and UK)	Soluble fibre, a bulk laxative prescribed by GPs; used in clinical trials (Prior and Whorwell, 1987)
Corn bran (US and UK)	Insoluble fibre; cereal; used in clinical trials (Cook, Irvine, Campbell, Shannon, Reddy and Collins, 1990)
Wheat bran (US and UK)	Insoluble fibre; cereal; used in clinical trials (Snook and Shepherd, 1994)
Peppermint oil (US and UK)	Prescribed by GPs; used in clinical trials (Rees et al., 1979)
Guar gum (US)	A mucilage derived from the seeds of the Indian cluster bean and used in food processing as a thickener and emulsion stabilizer; used in clinical trials (Giannini et al., 2006).
Prebiotics	Non-digestible food ingredients that stimulate growth of bifidobacteria. For example, Lactulose is prescribed in the UK for constipation-predominant IBS and it is available in a banana flavour solution. Prebiotics can also be found in some cereals. Used in clinical trials (Bittner, Croffut and Stranahan, 2005).
Probiotics	Live micro-organisms (Bifidobacterium and Clostridium). Probiotics are natural therapeutic agents and produce a first line defence against the colonization of pathogenic organisms. Also found in cereals and yoghurts. Used in clinical trials (see Young and Cash, 2006).
Avoiding certain foods Some GPs ask their patients to avoid certain foods and to include an intake of 25 g of fibre per day.	The following foods have been pin-pointed as ones that often exacerbate IBS: wheat, milk, yeast, eggs and cashew nuts.

encouraged to imagine walking through a beautiful wood on a spring day, to experience the sounds of the birds, to feel the pleasant sensations of fresh air on her face and to admire the beautiful trees. At this point, Zimmerman introduced the tree metaphor to provide the patient with a feeling of inner strength. She was then asked to imagine a crystal clear and free-flowing river in which she could see herself reflected in the water. Here an age regression technique was used: a comparison was made between the stream and the normal functioning of all her systems in the body, including her bowels. At this point, it was suggested that some stones should interrupt the free flow of the river, blocking the stream; here, she was instructed to clear out as much of the rubble as she felt capable of doing, and that this would have the effect of re-creating a smooth-flowing river that would run inside the whole of her body. This precipitated an abreaction and she began to cry. The patient was given three subsequent booster sessions; and, at one year follow-up, she reported that she had not only remained symptom free, but also, that her mood had improved and she had regained her 'joy of living'.

A study was carried out by Houghton, Calvert, Jackson, Cooper and Whorwell (2002) which was designed to investigate the effect of emotion on visceral sensitivity. Patients were studied under four conditions: (1) waking state (control), (2) hypnosis with

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induced anger, (3) hypnosis with induced happiness, or (4) hypnosis with suggestions of relaxation (neutral emotion). In this study, 20 patients were assessed (17 women, 3 men; age range 17–64); all patients were studied under fasting conditions and the readings were taken at the same time each day. In order to evoke the appropriate emotion, patients were asked, prior to the hypnosis, which sort of situations might produce the required emotional response; direct suggestions were used to elicit the appropriate emotion and, in the case of anger, patients were given relaxation and ego strengthening before disengagement. It was found that hypnotic relaxation significantly increased the rectal distension volumes required to produce symptoms of 'first sensation', 'urgency', 'desire to defecate' and 'discomfort'. It was somewhat surprising that happiness appeared to have little effect when compared with relaxation or the waking state. Anger, on the other hand, had the effect of reducing the amount of distension required to elicit symptoms. This study supports the view that emotions are inextricably linked to visceral hypersensitivity and the perception of symptoms; it can also be concluded that hypnosis is a valuable tool for inducing relaxation and reducing IBS symptoms. Further, although specific symptoms may respond to medical or dietary measures as outlined above, none of these will encompass all the global symptoms of IBS. Hypnosis, on the other hand, compares very favourably with these symptomatic treatments as it is able to deal with the full spectrum of IBS symptoms (Klein, 1988; Lackner, Mesmer, Morley, Dowzer and Hamilton, 2004).

The use of audiotapes in IBS

Forbes, MacAuley and Chiotakakou-Faliakou (2000) carried out an important study in which gut-directed hypnotherapy was compared with a carefully-prepared audiotape. In a randomized study of IBS patients (n = 52; 37 women, 15 men) who had not responded either to dietary or pharmacological measures, it was found that 76% of the hypnotherapy patients improved and, remarkably, 59% improved with the use of an audiotape only. Although inferior to hypnotherapy, daily use of the audiotape, which provides background information about IBS, stress coping strategies and structured relaxation, is a cost effective form of treatment. The use of hypnotherapy and audiotapes for the treatment of IBS has been used by the St. Mark's Hospital team in the UK since 1992.

Case study

Pamela, an extremely intelligent 54-year-old married woman, had been suffering from severe IBS symptoms including abdominal pain, bloating, urgency, and diarrhoea, which alternated with periods of constipation. She also complained that she was generally unwell and that she was severely incapacitated, so much so that she could not travel anywhere. Because her symptoms would come on unexpectedly, Pamela argued that this prevented her from going out, and this, in effect, put a stop to her teaching career. She was a bit uncertain about the duration of her IBS symptoms, but the letter from her referring doctor suggested that they had been present since the age of 18, although her symptoms had gradually worsened over the last few years since she had arrived back from Canada. It was suggested that she come for therapy once a week.

In the first session, accompanied by her husband, it was established that, quite apart from the IBS problem, she also suffered from Hashimoto's thyroiditis for which she needed to take Thyroxin daily. She also suffered from psoriasis. The report from her doctor stated that she had seen many specialists, including a dietician, a homeopathic

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doctor as well as a gastroenterologist who had carried out a colonoscopy and full blood count, both of which were normal. She had obviously researched IBS herself on the Internet and had decided to try hypnotherapy as a last resort.

Pamela had two sisters. Her older sister suffered from cerebral palsy: this interfered with leg movement, but didn't prevent her from working as a manger of a cleaning company. She also had a younger sister who was very much less intelligent than her. As a result, her family, in particular her mother, decided to protect her two sisters by underplaying her superior intellect. Nevertheless, she went to university, obtained a degree and became a qualified teacher. She emigrated to Canada because of her husband's job, but promised her older son that they would return to the UK so that he could take his degree in England.

She had two sons. Her older son, having obtained his degree, was now working as a banker in central London, whereas her younger son, who was just finishing school, had been classified in Canada as a 'slow learner'. This led her to investigate this problem in the UK: she wondered whether he had been suffering from dyslexia, and, when this diagnosis had been confirmed, she decided to take a one year postgraduate course in special learning difficulties. She used this qualification primarily to help her younger son with his reading problems but she also taught other children suffering from dyslexia, and they came to her home. Unfortunately, the erratic nature of her IBS symptoms, with its alternating diarrhoea and constipation, had become so severe that she felt she was unable to continue with her teaching. At the time of the first appointment, her older son was working as a banker, while her younger son, having taken a gap year, had just started university. Pamela's family was living in Essex, while her recently bereaved mother lived on her own in Derby approximately 130 miles away. The other two daughters had always lived nearby, whereas Pamela, much to her mother's consternation, had moved away from the area some time ago and had lived in Canada for several years. In the space of one hour, she had been able to identify succinctly the key factors which had been responsible for her refractory IBS.

A week later, she was too frightened to come for her consultation as it would have meant travelling on her own. It was suggested to her that she should have a telephone session instead. During the course of this session (session 2), Pamela described in detail the precise route from her home to the consulting room. She said that she would have to travel by bus because she could not cope with travelling on the London Underground: clearly, she was also suffering from agoraphobia of which she seemed to be completely unaware. Over the previous week, she had given a great deal of thought to her problems, and she decided to utilize the session to explore these issues in greater detail. Quite apart from her bowel symptoms, she also suffered from flying phobia and arachnophobia.

Pamela had her first hypnosis session four days later (session 3), and as her special place she chose sitting alone in a comfortable chair at home. She was a good hypnotic subject and achieved a great deal of hand levitation. In the hypnosis, Pamela described her various abdominal symptoms in detail; she was then given the posthypnotic suggestion to carry out self-hypnosis for ten minutes a day using the association word 'calm'. During the next week, she did attempt to use self-hypnosis but found this initially difficult to achieve; she had also read about the river metaphor on the Internet, but felt that this, on its own, would not adequately deal with her underlying problems. During the hypnosis, Pamela wanted to clarify in her own mind whether the aim of the treatment was to control her IBS symptoms or to effect a cure: the therapist (TK) assured her that the aim was to work towards a complete recovery. It was in her next hypnosis session (session 5) that she opened up and was able to talk about her lack of self-esteem; in par-

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ticular, she talked about the time when she first arrived in Canada and some of the problems connected with her overbearing sister-in-law. This was an important session for Pamela as she realized that her sister-in-law had increased her anxiety and that this had had a deleterious effect on her well-being and self-esteem. It was at this point that the therapist reiterated that her emotional problems had had an enormous impact on her IBS.

When she came for her sixth session, she was delighted to report that she had been able to make a surprise visit to her mother on Sunday: this involved a two and a half hour drive in each direction. She had also been able to go to the dentist, which was complicated for her, and had managed to travel on her own to the consulting room. In the hypnosis which followed, she wanted to re-experience and work through some of the difficulties associated with the visit to her mother in Derby. Her mother had suggested that it would be quite simple, on future occasions, for her to fly to Derby, and implied that she would visit her more frequently if she were a dutiful daughter. Following the visit to her mother, Pamela's IBS symptoms increased in severity.

The hypnotherapy (in session 7) focused on her abdomen; she was given soothing suggestions, including the river metaphor, and direct suggestions that her abdominal pain, diarrhoea, frequency and bloating would reduce in intensity. After this, Pamela was able to release a great deal of resentment towards her mother who had never forgiven her for emigrating to Canada and constantly criticized her for not visiting often enough. She also pointed out that, when her mother did come to visit her in Canada, she behaved like a guest and refused to help with the running of the house, remaining in bed for the entire week. It was pointed out to her – and this hit her quite hard – that her mother was at the source of her complex phobic disturbance and this was reiterated in sessions 8 and 9.

At this stage, the hypnosis took on the following three-stage format:

1 Special place consisting of her sitting in her favourite chair at home, either reading the newspaper or watching television
2 Soothing suggestions given to counteract the various bowel symptoms such as diarrhoea, bloating and frequency
3 Hypnoanalysis to explore interpersonal relationships within the family

During the next three sessions (sessions 10, 11 and 12), Pamela was pleased to report that there had been improvements in two main areas. First, she said that she had been able to go out to dinner without experiencing any abdominal symptoms, and she felt that this was a major improvement. Second, she was now able go up to her bedroom on her own without having to wait for her husband to check for spiders. These sessions focused on Pamela's resentment towards her mother coupled with her feelings of disloyalty about talking about her. In fact, she had been made to feel guilty for most of her life; first, she moved away from the family home, and then, whenever she wrote to her mother and went to visit, her mother implied that it was not good enough. In fact, her mother expected Pamela to ring every evening without fail and this had led to a lot of resentment.

In session 13, Pamela was keen to rehearse a forthcoming flight to the south of France as she found travelling abroad very complicated; in particular, we focused on the car journey at the other end where she felt that she was furthest from base. It was here that we discussed her apparent flying phobia. It was pointed out to her that her phobia was directly related to her feelings of guilt about being separated from her mother, and that she felt increasingly anxious the further she travelled away from her.

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In the sixteenth session, Pamela was pleased that she had made considerable progress: her travelling had improved remarkably, she had no problems visiting her dentist and she had managed to limit phone calls to her mother to alternate days. In addition, she had been able to be assertive towards her mother and pointed out that she would not expect her own sons to ring her every day and that this was an excessive demand on her mother's part.

In the eighteenth session, Pamela expressed that she felt sensitive about having a very much wealthier lifestyle when compared with her two sisters; these emotions compounded her already intense feelings about moving away from her mother and two sisters. Even so, a week later, she was able to travel to France – her first trip abroad in two and a half years – and reported, during session 19, that the journey had been a great success. She had hoped that, on her return, she might receive a telephone call from her mother, but this did not take place. In fact, she commented that her mother expected her to phone but never made outgoing phone calls: it was obvious that she disapproved of her daughter's newfound independence.

In session 24, she recognized that her abdominal symptoms worsened following two distressing telephone calls from her sons. Her older son said that he was not coping with the excessively long working hours at the bank, and said that he needed to take a six month break, while her younger son had decided to opt out of university before completing his first year. Pamela wanted to work through these problems in the consulting room, and, over the next week, her abdominal symptoms reduced.

In session 26, she was proud of the fact that she had been able to travel to the south of France, and felt much better on this occasion. In the next session (session 27), Pamela was delighted to report that she had been able to travel to Amsterdam and, more importantly, for the first time in her life, she had felt perfectly free to roam around the city on her own. This was a turning point in her treatment and she felt proud and emancipated; in addition, her IBS had improved significantly, and this, in turn, meant that she was able to eat normal meals without the fear of developing severe abdominal symptoms.

In session 33, the therapist commented that she exercised strict control over her children; and, when she went home, she asked her husband about this and he confirmed that this was the case. Pamela took great exception to this comment. Importantly, she was able to express a great deal of anger, and this was directed towards the therapist in the next session (session 34). As a result, her bowel symptoms improved dramatically and these improvements continued until she decided to terminate the therapy in the 38th session.

In a follow-up telephone interview a year later, Pamela said that she had been symptom free for nine months, although she had had a temporary setback when her mother died six weeks earlier. In order to cope with the funeral, understandably a difficult experience, she decided to use self-hypnosis and this gave her the necessary strength to manage the situation. She also indicated that she used self-hypnosis for difficult situations – going shopping or visiting the dentist – but she was proud to be able to tell her therapist that she was now able to go shopping on her own and that, all round, she was functioning extremely well.

Comment

This paper clearly demonstrates that the combined use of hypnotherapy with psychodynamic psychotherapy is capable of leading to a complete recovery.

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The psychotherapy focused on the highly abnormal relationship that the patient had with her mother, and her feelings of guilt about moving away from the family home. She was also made to suppress her high intelligence as a child to protect her two sisters, and later in life when she became financially superior, her initial conditioned response was to suppress, or feel guilty about, her wealth. It was as a result of this relationship and overall family dynamics that she developed a number of phobic symptoms: these included arachnophobia, dental phobia, agoraphobia and difficulties travelling abroad by air, the latter, in this case, being a function of her separation anxiety disorder. During the treatment, it became increasingly apparent that she harboured a great deal of resentment and anger towards her mother, and several sessions were devoted to expressing these powerful feelings to the therapist. A pivotal point in the therapy occurred when the patient transferred a great deal of this anger onto the therapist; this had a releasing effect on her IBS and dramatically improved her emotional state. It was shortly after this that she felt able to terminate treatment.

While the underlying psychological factors were of fundamental importance, the hypnotherapy was essential to the overall treatment programme. Using the river metaphor, the soothing suggestions had a direct effect on her bowel symptoms, while, concurrently, the underlying factors associated with her IBS were explored. Further, the patient learnt to use self-hypnosis, and she found this extremely helpful not only for her IBS symptoms but also for her various phobic disturbances. At one year follow up, this improvement was maintained.

References

Alpers DH (2006) Diet and irritable bowel syndrome. Current Opinion in Gastroenterology 22(2): 136–9.

American Gastroenterological Association (2006) Symposium. Rome III: new criteria for functional GI disorders. Los Angeles, California, May 23.

Bennett P, Wilkinson S (1985) A comparison of psychological and medical treatment of the irritable bowel syndrome. British Journal of Clinical Psychology 24(part 3): 215–16.

Bittner AC, Croffut RM, Stranahan MC (2005) Prescript-assist probiotic-prebiotic treatment for irritable bowel syndrome: a methodologically oriented, 2-week randomised, placebo-controlled, double-blind clinical study. Clinical Therapeutics 27(6): 755–61.

Brandt LJ, Locke GR, Olden K, Quigley E, Schoenfeld P, Schuster M, Talley N (2002) An evidence-based approach to the management of irritable bowel syndrome in North America. American Journal of Gastroenterology 97(Suppl.): S1–27.

Camilleri M (2001) Review article: Tegaserod. Alimentary Pharmacology and Therapy 15(3): 277–89.

Cann PA, Read NW, Holdsworth CD, Barends D (1984) Role of Loperamide and placebo in management of irritable bowel syndrome. Digestive Diseases and Sciences 29(3): 239–47.

Cook IJ, Irvine EJ, Campbell D, Shannon S, Reddy SN, Collins SM (1990) Effect of dietary fiber on symptoms and rectosigmoid motility in patients with irritable bowel syndrome. A controlled, cross over study. Gastroenterology 98: 66–72.

Creed F (2006) How do SSRIs help patients with irritable bowel syndrome? Gut 55: 1065–7.

Cremonini F, Delgado-Aros S, Camilleri M (2003) Efficacy of alosetron in irritable bowel syndrome: a meta-analysis of randomized controlled trials. Neurogastroenterology and Motility 15(1): 79–86.

Drossman DA, Toner BB, Whitehead WE, Diamant NE, Dalton CB, Duncan S, Emmott S, Proffitt V, Akman D, Frusciante K, Le T, Meyer K, Bradshaw B, Mikula K, Morris CB, Blackman CJ, Hu Y, Jia H, Li JZ, Koch GG, Bangdiwala SI (2003) Cognitive-behavioural therapy versus

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education and desipramine versus placebo for moderate to severe functional bowel disease. Gastroenterology 125: 19–31.
Drossman DA (2006) The functional gastrointestinal disorders and the Rome III Process. Gastroenterology 130(5): 1377–90.
Efskind PS, Bernklev T, Vatn MH (1996) A double-blind placebo-controlled trial with loperamide in irritable bowel syndrome. Scandinavian Journal of Gastroenterology 31: 463–8.
FAO/WHO (2002) Working Group Report on Drafting Guidelines for the Evaluation of Probiotics in Food. London, Ontario, Canada, May 1.
Farthing, M (2004) Treatment options in irritable bowel syndrome. Best Practice and Research Clinical Gastroenterology 18(4): 773–86.
Floch MH, Narayan R (2002) Diet in the Irritable Bowel Syndrome. Journal of Clinical Gastroenterology 35(1) Suppl.: S45–S52.
Forbes A, MacAuley S, Chiotakakou-Faliakou E (2000) Hypnotherapy and therapeutic audiotape: effective in previously unsuccessfully treated irritable bowel syndrome. International Journal of Colorectal Disease 15: 328–34.
Giannini EG, Mansi C, Dulbecco P, Savarino V (2006) Role of partically hydrolyzed guar gum in the treatment of irritable bowel syndrome. Nutrition 22(3): 334–42.
Gholamrezaei A, Ardestani SK, Emami MH (2006) Where does hypnotherapy stand in the management of irritable bowel syndrome? A systematic review. The Journal of Alternative and Complimentary Medicine 12(6): 517–27.
Gonsalkorale WM (2006) Gut-directed hypnotherapy: the Manchester approach for treatment of irritable bowel syndrome. International Journal of Clinical and Experimental Hypnosis 54(1): 27–50.
Greenbaum DS, Mayle JE, Vanegeren LE, Jerome JA, Mayor JW, Greenbaum RB, Matson RW, Stein GE, Dean HA, Halvorsen NA, Rosen LW (1987) Effects of desipramine on irritable bowel syndrome compared with atropine and placebo. Digestive Diseases and Sciences 32(3): 257–66.
Homann HH, Kemen M, Fuessenich C, Senkal M, Zumtobel V (1994) Reduction in diarrhea incidence by soluble fiber in patients receiving total or supplemental enteral nutrition. Journal of Parenteral and Enteral Nutrition 18(6): 486–90.
Houghton LA, Calvert EL, Jackson NA, Cooper P, Whorwell PJ (2002) Visceral sensation and emotion: a study using hypnosis. Gut 51: 701–4.
Hovdenak N (1987) Loperamide treatment of the irritable bowel syndrome. Scandinavian Journal of Gastroenterlogy 130: 81–4.
Johanson JF (2004) Options for patients with irritable bowel syndrome: contrasting traditional and novel serotonergic therapies. Neurogastroenterology and Motility 16 (6): 701–11.
Kennedy T, Jones R, Darnley S, Seed P, Wessely S, Chalder T (2005) Cognitive behaviour therapy in addition to antispasmodic treatment for irritable bowel syndrome in primary care: randomised controlled trial. British Medical Journal 331: 435–7.
Klein KB (1988) Controlled treatment trials in the irritable bowel syndrome: a critique. Gastroenterology 95(1): 232–41.
Kline RM, Kline JJ, Di Palma J, Barbero GJ (2001) Enteric-coated, pH-dependant peppermint oil capsules for the treatment of irritable bowel syndrome in children. The Journal of Pediatrics 138 (1): 125–8.
Lackner JM, Mesmer C, Morley S, Dowzer C, Hamilton S (2004) Psychological treatments for irritable bowel syndrome: a systematic review and meta-analysis. Journal of Consulting and Clinical Psychology 72(6): 1100–13.
Lembo T, Rink R (2002) Current pharmacologic treatments of irritable bowel syndrome. Participate (International Foundation for Functional Gastrointestinal Disorders) 11(2) Summer: 1–4.
Liu JH, Chen GH, Yeh HZ, Huang CK, Poon SK (1997) Enteric-coated peppermint oil capsules in the treatment of irritable bowel syndrome: a prospective, randomized trial. Journal of Gastroenterology 32(6): 765–8.

Published by John Wiley & Sons, Ltd DOI: 10.1002/ch

Longstreth GF, Fox DD, Youkeles L, Forsythe AB, Wolochow DA (1981) Psyllium therapy in the irritable bowel syndrome. Annals of Internal Medicine 95(1): 53–6.

Lynch PM, Zamble E (1989) A controlled behavioral treatment study of irritable bowel syndrome. Behavior Therapy 20: 509–23.

Manning AP, Thompson WG, Heaton KW, Morris AF (1978) Towards positive diagnosis of the irritable bowel. British Medical Journal 2(6138): 653–4.

Müller-Lissner SA, Fumagalli I, Bardhan KD, Pace F, Pecher E, Nault B, Rüegg P (2001) Tegaserod, a 5-HT4 receptor partial agonist, relieves symptoms in irritable bowel syndrome patients with abdominal pain, bloating and constipation. Alimentary Pharmacology and Therapeutics 15(10): 1655–66.

Myren J, Groth H, Larssen SE, Larsen S (1982) The effect of trimipramine in patients with the irritable bowel syndrome. A double-blind study. Scandinavian Journal of Gastroenterology 17(7): 871–5.

Niedzielin K, Kordecki H, Birkenfeld B (2001) A controlled, double-blind, randomized study on the efficacy of Lactobacillus plantarum 299V in patients with irritable bowel syndrome. European Journal of Gastroenterology and Hepatology 13(10): 1143–7.

Novartis Pharmaceuticals Corporation. Zelnorm (Tegaserod maleate) (2002) Prescribing Information. East Hanover, NJ: Novartis Pharmaceuticals Corporation.

Novick, J, Miner P, Krause R, Glebas K, Bliesath H, Ligozio G, Ruegg P, Lefkowitz M (2002) A randomized, double-blind, placebo-controlled trial of Tegaserod in female patients suffering from irritable bowel syndrome with constipation. Alimentary Pharmacology and Therapeutics 16(11): 1877–88.

O'Mahony L, McCarthy J, Kelly P, Hurley G, Luo F, Chen K, O'Sullivan GC, Kiely B, Collins JK, Shanahan F, Quigley EM (2005) Lactobacillus and bifidobacterium in irritable bowel syndrome: symptom responses and relationship to cytokine profiles. Gastroenterology 128(3): 541–51.

Piai G, Visconti M, Imbimbo BP, Minieri M, Sollazzo R, Mazzaca G (1987) Long-term treatment of irritable bowel syndrome with cimetropium bromide, a new antimuscarinic compound. Current Therapeutic Research 41(6): 967–77.

Poynard T, Regimbeau C, Benhamou Y (2001) Meta-analysis of smooth muscle relaxants in the treatment of irritable bowel syndrome. Alimentary Pharmacology and Therapeutics 15(3): 355–61.

Prior A, Whorwell PJ (1987) Double blind study of ispaghula in irritable bowel syndrome. Gut 28: 1510–13.

Rees WD, Evans BK, Rhodes J (1979) Treating irritable bowel syndrome with peppermint oil. British Medical Journal 2 (6194): 835–6.

Ritchie JA, Truelove SC (1979) Treatment of irritable bowel syndrome with lorazepam, hyoscine butylbromide, and ispaghula husk. British Medical Journal 1 (6160): 376–8.

Schoenfeld P (2005) Efficacy of current drug therapies in irritable bowel syndrome: what works and does not work. Gastroenterology Clinics of North America 34(2): 319–35.

Shaw G, Srivastava ED, Sadlier M, Swann P, James JY, Rhodes J (1991) Stress management for irritable bowel syndrome: a controlled trial. Digestion 50(1): 36–42.

Snook J, Shepherd HA (1994) Bran supplementation in the treatment of irritable bowel syndrome. Alimentary Pharmacology and Therapeutics 8(5): 511–14.

Steinhart MJ, Wong PY, Zarr ML (1981) Therapeutic usefulness of amitriptyline in spastic colon syndrome. International Journal of Psychiatry in Medicine 11(1): 45–57.

Stephen AM, Cummings JH (1980) Mechanism of action of dietary fibre in the human colon. Nature 284: 283–4.

Tack J, Broekaert D, Fischler B, Van Oudenhove L, Gevers AM, Janssens J (2006) A controlled crossover study of the selective serotonin reuptake inhibitor citalopram in irritable bowel syndrome. Gut 55: 1095–103.

Toner BB, Segal ZV, Emmott S, Myran D, Ali A, DiGasbarro I, Stuckless N (1998) Cognitive-behavioral group therapy for patients with irritable bowel syndrome. International Journal of Group Psychotherapy 48(2): 215–43.

Published by John Wiley & Sons, Ltd DOI: 10.1002/ch

Toner BB, Stuckless N, Ali A, Downie F, Emmott S, Akman D (1998) The development of a cognitive scale for functional bowel disorders. Psychosomatic Medicine 60(4): 492–7.

Tuohy KM, Probert HM, Smejkal CW, Gibson GR (2003) Using probiotics and prebiotics to improve gut health. Drug Discovery Today 8(15): 692–700.

Van Loo J (2004) The specificity of the interaction with intestinal bacterial fermentation by prebiotics determines their physiological efficacy. Nutrition Research Reviews 17: 89–98.

Vij JG, Jiloha RG, Kumar N, Madhu SV, Malika V, Anand BS (1991) Effect of antidepressant drug (doxepin) on irritable bowel syndrome patients. Indian Journal of Psychiatry 33: 243–6.

Wheatley D (1976) Irritable colon syndrome treated with an anti-spasmodic drug. Practitioner 217: 276–80.

Whorwell PJ, Prior A, Faragher EB (1984) Controlled trial of hypnotherapy in the treatment of severe refractory irritable-bowel syndrome. Lancet 2 (8414): 1232–4.

Whorwell PJ, Krumholz S, Müller-Lissner SM, Schmitt C, Dunger-Baldauf C, Ruegg PC (2000) Tegaserod has a favorable safety and tolerability profile in patients with constipation-predominant and alternating forms of irritable bowel syndrome (IBS). Gastroenterology 118(4) Suppl 2: A1204.

Whorwell PJ (2006) Effective management of irritable bowel syndrome: the Manchester model. International Journal of Clinical and Experimental Hypnosis 54(1): 21–6.

Whorwell PJ, Altringer L, Morel J, Bond Y, Charbonneau D, O'Mahony L, Kiely B, Shanahan F, Quigley EM (2006) Efficacy of an encapsulated probiotic Bifidobacterium infantis 35624 in women with irritable bowel syndrome. American Journal of Gastroenterology 101(7): 1581–90.

Young P, Cash BD (2006) Probiotic use in irritable bowel syndrome. Current Gastroenterology Reports 8(4): 321–6.

Zimmerman J (2003) Cleaning up the river: a metaphor for functional digestive disorders. American Journal of Clinical Hypnosis 45(4): 353–9.

Zuckerman MJ (2006) The role of fiber in the treatment of irritable bowel syndrome: therapeutic recommendations. Journal of Clinical Gastroenterology 40(2): 104–8.

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