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## Chapter

# Role of Herbal Medicine, Acupressure and Acupuncture in the Treatment of Irritable Bowel Syndrome

*Ankita Wal, Biplab Debnath, Neha Verma,  
Sumanta Bhattacharya, Rahul Shivajirao Solunke,  
Mohd Masih Uzzaman Khan and Pranay Wal*

## Abstract

Irritable bowel syndrome (IBS), is a chronic functional gastrointestinal disease that is characterized by a variety of symptoms that have a major negative impact on patients' quality of life. It affects 9–23% of the total population of the world. At this time, no medication that is capable of addressing all symptoms associated with IBS in an effective manner (antispasmodics, antidiarrheals, sedatives). More than half of patients may seek treatment for their gastrointestinal problems via the use of complementary and alternative medicine (CAM), which includes treatments like herbal medicine, acupressure, and acupuncture. The objective of this chapter is to evaluate the effectiveness and safety of a herbal preparation, acupressure, and acupuncture treatment in patients diagnosed with IBS. Several sources were used to acquire the material, including review articles published in various publications that had keywords such as herbal drugs, acupuncture, acupressure, IBS and so on. The information was also gathered from the Internet. Herbal therapy and plant products are widely utilized to treat IBS. Acupuncture and acupressure have long been used successfully by patients to treat functional gastrointestinal problems. Multiple clinical studies have shown that their effectiveness and safety are superior to those of placebo and conventional medications. Herbal medications, acupressure, or acupuncture show clinically and statistically significant alleviation of IBS symptoms.

**Keywords:** acupuncture, herbal medicine, irritable bowel syndrome, Acupoint

## 1. Introduction

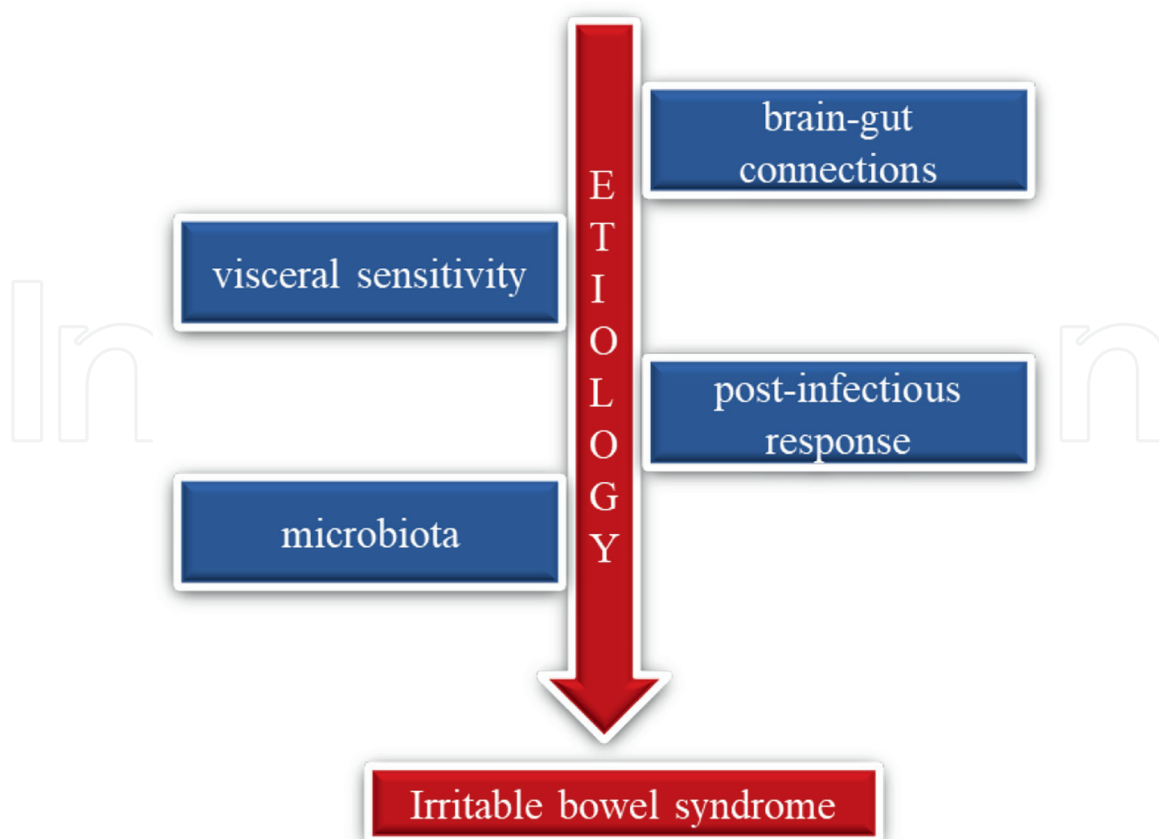
Irritable bowel syndrome (IBS) is a prevalent gastrointestinal disorder that occurs as stomach discomfort, gas, diarrhea, and constipation. IBS involves around 10–15% of the regular populace and it has a negative impact on the sufferer's standard of living [1]. In addition, many IBS patients experience extracolonic symptoms such as

IBS with diarrhea (IBS-D)	IBS with constipation (IBS-C)	IBS with mixed bowel habits or cyclic pattern (IBS-M)
Stools that are loose more than 25% of the time and solid less than 25% of the time	Hard stools more than 25% of the time and watery stool less than 25% of the time	More than 25% of the time, both hard and soft stool
Men have a higher prevalence of this condition.	Men have a higher prevalence of this condition.	

**Table 1.**  
*Different kinds of irritable bowel syndrome.*

insomnia, anxiety, sadness, and myofascial pain [2, 3]. Females and young individuals are more likely to be affected [4]. According to stool pattern, IBS is categorized into different subclasses: constipation-predominant IBS (IBS-C), diarrhea-predominant IBS (IBS-D), mixed IBS (IBS-M), and unspecified IBS (IBS-U) (**Table 1**) [5].

Many elements are linked in the etiology, which is unknown. Understanding the pathophysiology of IBS is critical since novel pharmacological treatments are starting to target IBS's well-recognized pathophysiologic mechanisms. Gastrointestinal mobility, visceral sensitivity, post-infectious response, brain-gut connections, alterations in fecal microbiota, bacteria overpopulation, food allergy, and intestinal swelling have all been implicated in the development of IBS (**Figure 1**).



**Figure 1.**  
*Etiology of irritable bowel syndrome.*

The reported symptoms associated with these mechanisms, include Stomach-ache, gas, diarrhea, and constipation. Not all complaints are related to gastrointestinal; for example, fatigue seems quite prevalent. Medical care of these particular issues has emphasized symptomatic relief [6]. A significant amount of serotonin is found in enterochromaffin cells, which are found in the stomach or intestine, and perform a vital role in the regulation of the peristaltic reflex and sensory relays in the gastrointestinal tract [7]. It is supported by the evidence suggesting the 5-hydroxytryptamine (5HT) system is dysfunctional in people having IBS. Those suffering from constipation-predominant IBS (IBS-C) have a lower plasma serotonin release, whereas those suffering from diarrhea-predominant IBS (IBS-D) have a higher plasma serotonin release [8].

The standard treatment for irritable bowel syndrome (IBS) consists mostly of adopting dietary changes, using medications, and participating in psychotherapy. Medications may include anticholinergics, stool softeners, and laxatives. Examples of these medications are dicyclomine for abdominal cramps, lubiprostone for irritable bowel syndrome type C, and loperamide for irritable bowel syndrome type D [9]. Even while conventional methods of therapy generate good results, there have been reports of negative effects from patients using these medicines. Although it has been shown that loperamide is successful in reducing the frequency of bowel movements, reducing the amount of water in the stool, and slowing the motility of the gut, there have been reports that nausea, cramps, and constipation may be adverse effects of using this medication [10]. Antispasmodics like dicyclomine alleviate the pain and discomfort associated with irritable bowel syndrome (IBS), but they may also cause adverse effects such as sleepiness, dry mouth, impaired vision, or the inability to pee [11]. However, such drugs only give temporary relief from symptoms, and substantial recurrence rates (40 percent on treatment termination after 3 months) have been seen. A high majority of the sufferers (60.1 percent) reportedly discontinued treatment due to dissatisfaction with the lack of symptom relief [12].

Long-term usage may result in serious adverse effects (AEs) such as cardiovascular diseases and ischemic colitis [13], unsatisfactory medication results and adverse events linked with pharmacologic therapy have increased desire for alternative medicines [14]. Acupuncture, acupressure, and herbal medications are regarded as effective complementary treatments for functional gastrointestinal diseases. Various clinical trial.

### **1.1 Material method**

An extensive literature search was done on the various herbs, acupuncture and acupressure using standard databases such as Scopus, PubMed, and Elsevier. Terms like “ginger acupuncture, acupressure, turmeric, and acupoint”. Herbs, acupuncture, and acupressure were studied using preclinical and clinical data, as well as hypothesized mechanisms for their effect in the prevention and treatment of irritable bowel syndrome.

### **1.2 Selection**

We included double-blind, randomized controlled studies; randomized placebo controlled multi-centre trials; and a pilot study that compared the effects of herbs, acupuncture, and acupressure therapy (dose and duration of treatment) with placebo in patients with IBS.

## **2. Herbal drug management**

Clinically, herbal medications are used by over 80% of the people in developing nations for primary healthcare. Aside from its popularity in China and India, it is also popular in European countries [15]. They have long been utilized in Asian nations due to their safety, and the Cochrane library determined in 2006 that several herbal medicine may relieve IBS symptoms. Herbal medicine has a range of compounds that can operate on many targets with potentially synergistic action; those that have been used to manage IBS-related symptoms for millennia with good results will be the best choice. There have been various systematic reviews (SRs) on the usefulness of HMs for IBS [16].

Because of the wide range of symptoms that can occur in a single patient, various studies suggest that specific herbs such as peppermint, bitter candytuft, and artichoke leaf may provide some relief for irritable bowel syndrome (IBS), but no single herb should be relied on to provide complete relief. Instead, an herbal blend should be employed. Every herb used to treat irritable bowel syndrome has a specific purpose and is classified as anti-diarrheal, anti-spasmodic, or anti-inflammatory, like peppermint oil and *Fumaria officinalis* are anti-inflammatory [17, 18] while psyllium act as anti-diarrheal [19].

There have been a number of clinical trials conducted on a variety of herbs, all of which demonstrate good effects in the treatment of irritable bowel syndrome.

### **2.1 Antispasmodic herbs**

Irritable bowel syndrome is characterized mostly by abdominal discomfort, and treatment with antispasmodic herbs is strongly recommended. As a result of the predominance of this symptom, the therapy for IBS often consists of more than one antispasmodic.

Antispasmodics, such as wild yam root, crampbark or blackhaw bark, have a tendency to possess a favorable impact when used in IBS formulations. Despite the fact that these plants have been used for a very long time, very little study has been done on the spasmolytic impact that they have. Viburtinosides derived from a crampbark were shown to have a considerable and quick spasmolytic action on the isolated rabbit jejunum in one animal research [20]. Other plants that are effective in the treatment of spasms include chamomile, glycyrrhiza uralensis, anethum graveolens, atropa belladonna, and acorus calamus.

A physician who had extensive expertise in the therapeutic use of botanicals, Dr. Weiss recommended for the use of *Atropa belladonna* as an antispasmodic for the gastrointestinal system. He noted that belladonna is the most effective antispasmodic for the gastrointestinal tract [21]. He discovered that it was useful in treating spasms of the stomach, intestine, and bile ducts, and it was equally successful in treating all of these disorders. Dr. Weiss often combined belladonna with chamomile, peppermint, and/or wormwood because he believed that these herbs made the effect of the plant more potent. Because of the herb's potential for toxicity, it should only be used by qualified professionals who have extensive knowledge in the field. On the other hand, when administered by such a practitioner, belladonna often demonstrates a high level of effectiveness for treating more challenging and excruciating instances of IBS.

Fennel mainly contains anethol. It has a molecular similarity to the neurotransmitter dopamine and is found in fennel oil seeds. It has a relaxing action on intestinal

smooth muscle, isolated rat uterus, and guinea pig trachea rings. In a pilot study, people who suffer from irritable bowel syndrome experienced relieved stomach discomfort. A mechanism that is most commonly regulated by anethole-dependent relaxation of intestinal smooth muscle [22].

## 2.2 Antidiarrheal herbs

One of the most concerning elements of irritable bowel syndrome (IBS), from the patient's point of view, is the possibility of having diarrhea, which may lead to fecal incontinence. There are a few different types of herbs that are effective in treating both constipation and diarrhea. Formulations for IBS should always include at least one herb that is shown to be useful in the treatment of diarrhea.

The Indian fumitory is a plant that has a history of usage in traditional medicine for the treatment of both diarrhea and constipation [23]. The results of preliminary pharmacologic and animal research appear to support both of these applications.

Psyllium (*Plantago* spp.) seed is another effective component that may be included to an IBS treatment regimen. In individuals with irritable bowel syndrome (IBS), psyllium was shown to delay stomach emptying and lower the acceleration of colon transit, as shown in one research [24]. A number of the herbal remedies for diarrhea are astringent, in nature.

*Aloe barbadensis* Mill., more often known as aloe, is a medicinal plant that is widely known for its numerous therapeutic applications. Aloe is an alternative medicine that is frequently used to alleviate the symptoms of IBS. Although there have been some clinical studies in the past that indicated the positive benefits of aloe in relieving IBS symptoms, AV is most generally used as a powerful laxative and as a drug that improves the motility of the gastrointestinal tract [25].

The majority of them are quite high in tannins, which tie up fluid in the colon and hinder the excretory function of diarrhea, which is meant to be protective [26]. Mild astringents, including bayberry (*Morella cerifera*) root bark and meadowsweet (*Filipendula ulmaria*) leaves, may be beneficial in a standardized IBS formulation.

## 2.3 Bitters

Bitters are a category of herbs that improve the activity and motility of the gastrointestinal system. These herbs have a tendency to enhance gastric productions, have a tonic influence on the gastrointestinal system and give support for the exocrine pancreas. Bitters are used to restore digestive function in irritable bowel syndrome (IBS), which, in turn, tends to balance the intestinal flora and minimize gas and bloating symptoms [21].

Some bitters, such as those made from dandelion (*Taraxacum officinalis*) leaf, fumitory (*Fumaria officinalis*) leaf, or any of the herbs in the *Artemisia* spp. (wormwood and allied species), also contain choleric, cholagogue, and antibacterial properties. Artichoke leaf and bitter candytuft plant are two examples of bitters that have shown efficacy in the treatment of IBS in early research [27, 28].

## 2.4 Carminatives herbs

IBS is characterized by flatulence, abdominal discomfort, and other symptoms. The bitters mentioned above will help decrease flatulence significantly by aiding digestion, but herbs with carminative action will help lessen these typical symptoms.

Caraway is a popular herb, and one research found that its volatile oil, when coupled with peppermint oil, was just as efficient in treating dyspepsia as the drug cisapride [29]. Because irritable bowel syndrome (IBS) and dyspepsia are both functional disorders of the gastrointestinal system, many therapies that are helpful for people with dyspepsia will also be helpful for sufferers with IBS.

Peppermint is used in Western treatments for irritable bowel syndrome (IBS), and there have been a number of clinical studies that appear to confirm the benefits of peppermint oil in IBS [30]. According to the findings of one research, some peppermint constituents, particularly those that are more polar (or water-soluble), have antiulcerogenic and cholagogue properties. The investigator hypothesizes that these compounds might be responsible for the spasmolytic impact that peppermint has on the intestines and the bowel.

Caraway, dill fruit, anise fruit, peppermint leaf, and chamomile flower are all examples of carminatives, which were used for centuries both in the kitchen and as medicine to aid digestive health.

## **2.5 Anti-inflammatory herbs**

Herbs that help decrease inflammation are known as anti-inflammatory herbs. Such as curcuma, ginger, green tea etc.

Curcumin, the most significant secondary metabolite of *C. longa*, is responsible for the plant's anti-inflammatory properties [31]. Curcumin has anti-inflammatory action in vitro, and it lowers mucosal damage in an animal model of colitis. Mechanisms include the regulation of I-kappa B kinase activity, which is caused by the suppression of nuclear factor B (NF-kB) and pro-inflammatory cytokines (Tumor necrosis factor alpha, interleukin 1 beta, and interleukin 6) [22]. Turmeric (*Curcuma longa*) has long been used in Indian, Chinese, and Western herbal therapy to treat stomach discomfort and bloating. Hence it is beneficial in irritable bowel syndrome (IBS) treatment [32].

Ginger is one of the most widely used natural remedies for IBS. The US Food and Drug Administration considers ginger to be a safe food; it mostly contains 1–3 percent oil. Ginger has been shown in studies to influence pain and bowel movements, suggesting that it may help decrease discomfort and stool changes in IBS-D. The quantity of prostaglandin E2 (PGE2) produced is closely linked to the severity of IBS-D with stomach discomfort. The conversion of arachidonic acid to prostanoids, mediated by cyclooxygenase-1 and-2 (COX-1, COX-2) is an important step in the generation of PGE2. Previous research has demonstrated that 6-gingerol may suppress PGE2 generation and inflammation [33].

## **2.6 Antimicrobial herbs**

According to research, infection is most likely a problem in at least some of the individuals who have irritable bowel syndrome (IBS). up to one third of sufferers who have bacterial enteritis may end up with “postinfectious” IBS. According to recent research, the majority of individuals with symptomatic *Giardia lamblia* have IBS and are not improved by antiparasitic medication [34].

Goldenseal, also known as *Hydrastis canadensis* is a powerful antimicrobial for the intestines and a very suitable option for treatment of intestinal infection.

### **3. Acupressure and acupuncture**

Acupressure is a kind of acupuncture. Both acupuncture and acupressure are based on the principle of stimulating acupoints along the body's meridians in order to achieve therapeutic effects. By applying pressure to certain acupoints with the palms of one's hand or the tips of one's thumbs, acupressure may be utilized to influence the flow of energy inside the body [35, 36].

#### **3.1 Acupuncture**

Acupuncture is one of the complementary and alternative treatments that has gained the most popularity throughout the ages. Acupuncture is a kind of therapy that was developed in China more than three thousand years ago and is now widely used throughout the majority of the globe. From 1970s, the therapy has been gaining acceptance in Western world. Acupuncture involves placing tiny, solid needles (typically 32 to 36 gauge) into specific bodily regions. Various literature mention 365 points that are positioned in a methodical manner on meridians or "channels of energy flow" that are mapped onto the body's surface. According to the principles of traditional Chinese medicine (TCM), a disturbance in the relationship between yin and yang is the root of all disease. Yin represents the feminine aspect of life: nourishing, lower, cold, incomplete, inward, sensitive, protecting, gentle, giving. Yang is the masculine polarity: hard, dominating, energetic, higher, hot, excessive, outer, and creative. The movement of these opposing forces, known as Qi, is regarded as a crucial component in TCM therapy. It is best conceived of as energy manifesting itself, a vitalistic force that runs incessantly through the body's meridians, or energy channels. Disease, pain, and susceptibility to sickness are caused by disturbances in the movement of Qi among the meridians, organs, and five elements. TCM practitioners and medical acupuncturists use needles put at important locations along these meridians to balance elements like as heat, cold, wetness, and dryness in both the outer and inner domains [37].

Over the course of the last several decades, Western cultures have shown a growing openness to the practice of acupuncture. Although it may seem to be a mystery, the acupuncture philosophy does display specific gut physiologic reactions in terms of neuro-, humoral-, opioid-, and serotonergic pathways. Therefore, normalized motility, suppressed acid output, an antinociceptive impact through activation of autonomic pathways, decreased rectal hypersensitivity, and changed 5-hydroxytryptamine functions are described. In clinical practice, it is said to be beneficial for cases of nausea, vomiting, inadequate stomach emptying, some FGIDs, peptic ulcer, Crohn's disease, and postoperative ileus [15].

Acupuncture has a long history of successful treatment for functional gastrointestinal conditions including irritable bowel syndrome (IBS). Irritable bowel syndrome still lacks an effective medication therapy for many people in many regions of the world, but alternative medicine provides therapeutic choices for all suffering individuals [38]. Acupuncture seems to be effective in treating IBS because of its influence on rectal sensation. In IBS sufferers, the combination of acupuncture and massage was more effective than either treatment method when used alone [39]. It has been hypothesized that certain acupoints might alleviate problems of irritable bowel syndrome (IBS), including D-IBS, C-IBS, constipation, as well as abdominal discomfort [40].



### 3.2 Working

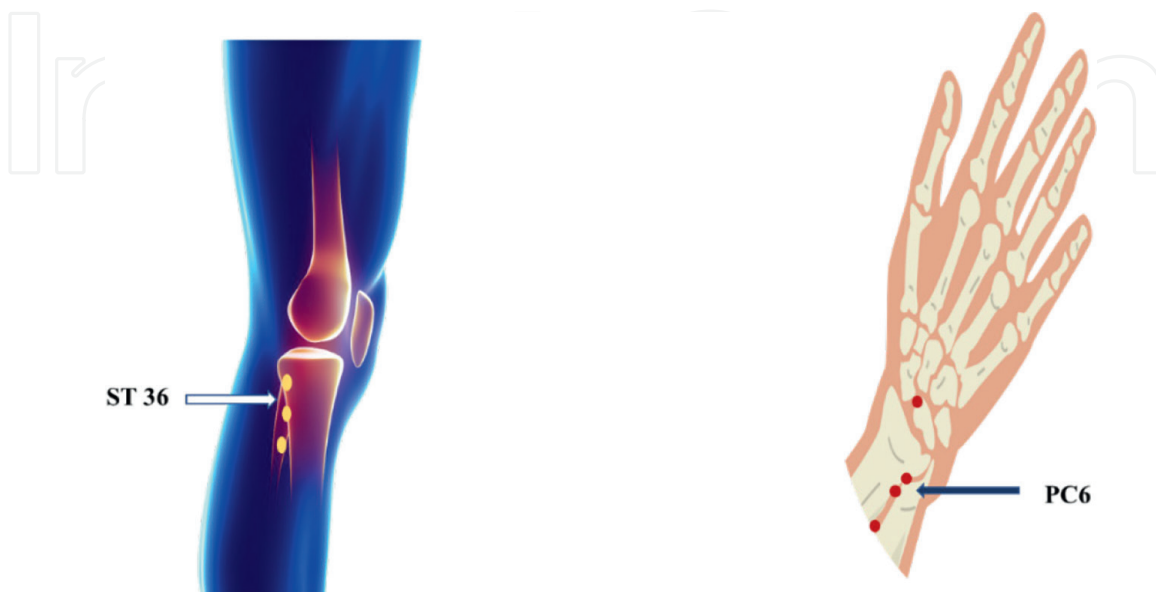
Irritable bowel syndrome (IBS) is characterized by the presence of chronic visceral hypersensitivity, often known as CVH. It is possible that the antihyperalgesic action of acupuncture is mediated by the opioidergic, adrenergic, and serotonergic pathways that are present in both the central nervous system and the peripheral nervous system. Electro-acupuncture at the acupoint ST-36 in both of the rats' hind limbs for a period of thirty minutes substantially reduced the hypersensitive reactions to colonic distention in rats who were subjected to heterotypic intermittent stress (HIS). In contrast, the analgesic effects were inhibited when the patients were pre-treated with naloxone, which is an opioid receptor antagonist. This finding led researchers to conclude that the opioid pathway was involved in the modulation of visceral hypersensitivity by acupuncture. It is well established that an increase in visceral sensitivity in the enteric nervous system may be attributed to hyperactivity in serotonin (5-HT). This is supported by the fact that an antagonist for the 5-HT<sub>3</sub> receptor is beneficial in treating irritable bowel syndrome. EA administered at ST-36 reduced visceral sensitivity and had an analgesic effect in rats with chronic visceral hypersensitivity by acting on the serotonergic system [41].

### 3.3 Acupuncture point used in irritable bowel syndrome

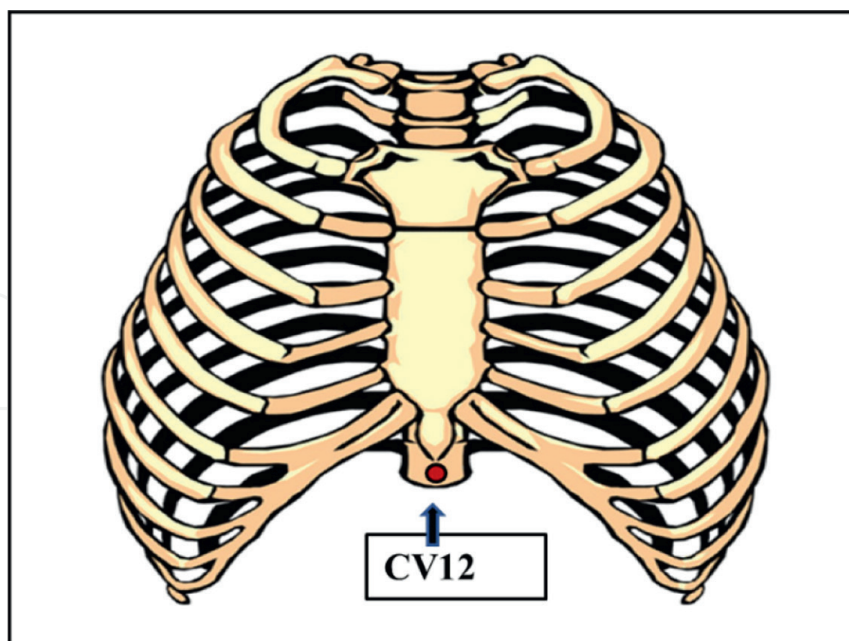
The Zusanli point of the lower limb (stomach-36; ST-36) and the Neiguan point (pericardium-6; PC-6) at the wrist are the most widely utilized acupuncture sites in treating Gastrointestinal problems (**Figure 2**).

ST-36 is placed in a depression between the muscles of the cranial tibia and the long digital extensor on the proximal one-fifth of the craniolateral surface of the back leg, distal to the head of the tibia. PC-6 is found in the groove between the flexor carpi radialis and the superficial digital flexor muscles [40].

Acupuncture at the ST-36 point activates the parasympathetic system and accelerates the rate of intestinal transit [42]. Patients who suffer from IBS who have constipation as their primary symptom may benefit from acupuncture treatment at the



**Figure 2.**  
*The sites of the acupuncture points ST36 and PC-6 on the human body.*



**Figure 3.**  
*Acupuncture at the CV-12 location.*

ST-36 point, which has a stimulatory impact on intestinal motility. Patients who suffer from stomach discomfort have been treated by acupuncture at the CV-12 location [43, 44]. There is a possibility that activating the sympathetic efferent pathway with acupuncture at CV-12 slows down the rate of colonic transit (**Figure 3**) [45].

### 3.4 Safety and harmful effects

Acupuncture is an invasive procedure, thus there are certain risks associated with it. These risks include organ puncture, such as pneumothorax, damage to neurological and vascular systems, infection, metal allergy, local discomfort and the creation of a hematoma [46, 47]. The most frequent possible risk is a minor but alarming syncope or presyncope, sometimes known as a “needle shock response,” in which the patient feels dizzy and faint. This response may be stopped by withdrawing the needles and providing smelling salts. It is more common on the first visit, although it may be reduced by keeping a careful eye on the sufferer and delivering the therapy in a recumbent rather than sitting posture. Hematoma development is possible, although bleeding is uncommon with acupuncture [37].

### 3.5 Contraindications

Most sufferers are unable to tolerate acupuncture because they are afraid of needles or are unable to stay in a comfortable posture throughout treatment. Patients who are septic or exceedingly debilitated, as well as those who are not stable due to delusions and hallucinations, are also inappropriate. Electroacupuncture should never be performed on the brain and the heart. These areas are especially vulnerable to injury. Acupuncture therapy should not be given to patients who have serious bleeding problems such as hemophilia or other similar conditions [48]. Acupuncture is not harmful in pregnancy; however, an acupuncturist must be adequately educated and avoid administering sites that might induce uterine contractility.

### **3.6 Acupressure**

Acupressure is a technique across the globe. It is a manual, needle-free, non-invasive, cost-effective, and non-pharmacological healing strategy used to improve the well-being of patients. Muscular tension is relieved in acupressure by putting pressure with the hand at certain acupoints or with the thumbs on specific points, or by putting pressure to acupoints to equalize the flow of physiological energy [36]. Acupressure is similar to reflexology, however with reflexology, the therapeutic response was achieved by working on a predefined reflex zone [49]. Acupressure requires the application of physical pressure to trigger points/acupoints/specific pressure points located along meridians. Meridians are the pathways inside the human body that serve to sustain Qi and consequently the stability of health. Each meridian is linked to different organs and tissues in the human body [50]. It involves applying pressure to certain acupoints in order to activate them. Stimulating these points may rectify an imbalance in the flow of Qi via channels, which in turn treats the disease [36]. In order to attain therapeutic advantages, re-equilibration of Qi, which improves the physiological functioning of bodily systems or Zang-fu in the process, is necessary [51]. Zang-fu is a combined word for the human internal organs; the heart, liver, spleen, lungs, and kidneys are the five Zang organs, while the gallbladder, stomach, small intestine, large intestine, urinary bladder, and sanjiao are the six fu organs [52]. It is essentially a non-pharmacological treatment on the body to cure a variety of illnesses by applying pressure to certain acupoints [53]. Acupuncture refers to the practice of massaging acupoints with the fingers, thumbs, elbows, or any other suitable tools in order to provide effective therapy that lasts from some couple of minutes to hours after a one session. It is a hand-mediated energy healing therapy that is believed to be a useful strategy for the management of a wide variety of ailments. Additionally, it is believed to provide excellent bodily comforts, gratification, and economy [36, 54].

### **3.7 Acupoints**

Pressure points are dispersed across the entire of the human body [55]. The acupoint is the point on the body that lies just under the surface of the skin, and activating the acupoint is the first step in acupressure [56]. Specific acupoint stimulation is known to induce functional responses that may be utilized to cure disorders [57]. Each acupoint has a unique sensation depending on the portion of the body that is experiencing pain or a particular issue. Simply applying pressure to various locations results in a variety of outcomes [36].

Within human bodies, there are a total of 14 meridians that are responsible for the movement of bioenergy (Chetana). Twelve of these fourteen meridians are situated in pairs, one on each side of the body (right and left), with the other two meridians being situated singly. The 12 paired meridians are made up of six 'Yin' meridians, which correspond to the power of negative energy, and six 'Yang' meridians, which correspond to the force of positive energy. These meridians, each of which is connected to one of the body's primary organs, are responsible for regulating the flow of bioenergy. These meridians, which link to the body's major organs, keep the flow of bio-energy going. Each meridian has been named for the organ to which it is linked. One end of the meridian is located in the palm of our hands, legs, or face, while the other end is located in one of our major organs. When pressure is applied to a certain

spot on the hand or the leg to which the corresponding organ is linked, the effect is felt in the distant organ. Acupressure employs light to forceful figure pressure. When the acupressure points are stimulated, they help to alleviate muscle tension, boost circulation of blood, and enhance the body's life force energy, all of which contribute to the body's ability to heal itself [58].

### 3.8 Acupressure point in irritable bowel syndrome

Various acupressure point used in the management of irritable bowel syndrome such as CV6, ST25, SP4, UB25, ST37, and LI14 [59].

#### 3.9 SP4

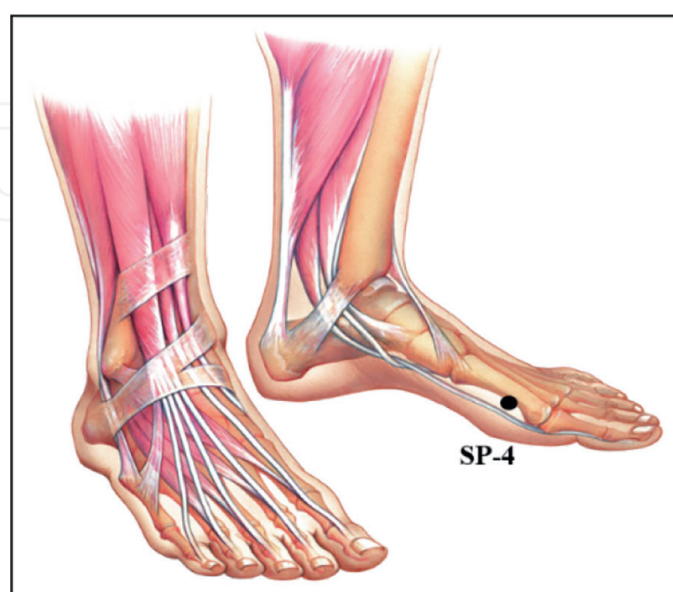
This point may be found on the medial portion of the inside of the foot, just above the depression on the bottom of the foot. When pressure is applied to this spot, it may help relieve symptoms of irritable bowel syndrome, including stomach discomfort, loss of appetite, diarrhea, and bloody stool (**Figure 4**) [60].

#### 3.10 UB25

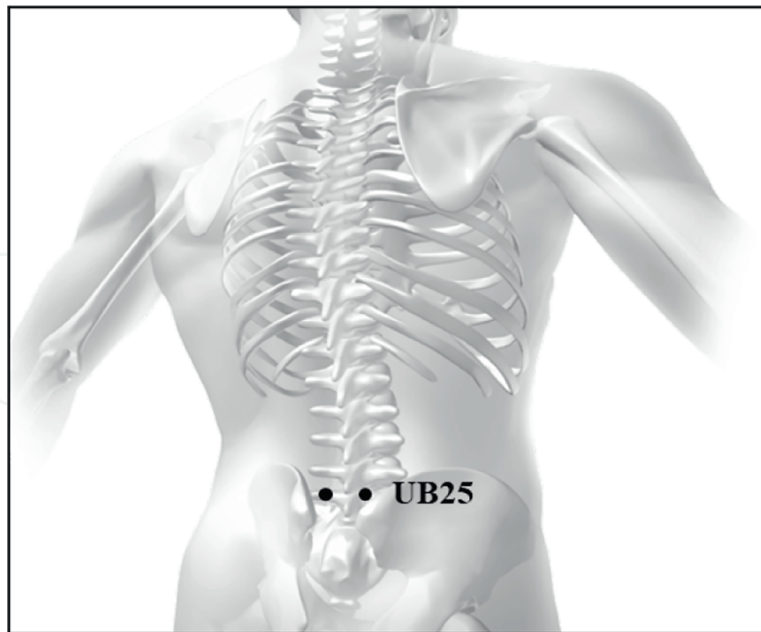
Urinary Bladder 25 is positioned in the back, 1.5 cun lateral to the bottom margin of the 4th lumbar vertebra. This pressure point is very beneficial in the treatment of irritable bowel syndrome, as well as abdominal distension, constipation, hemorrhoids, diarrhea, lumbar discomfort, and Urticaria (**Figure 5**) [61].

#### 3.11 L.I.14

Large Intestine 14 or the Upper Arm is a powerful acupuncture point for IBS that may assist with acid regurgitation, IBS complaints, depression, and hiccups (**Figure 6**) [62].



**Figure 4.**  
*SP4 site of acupressure.*



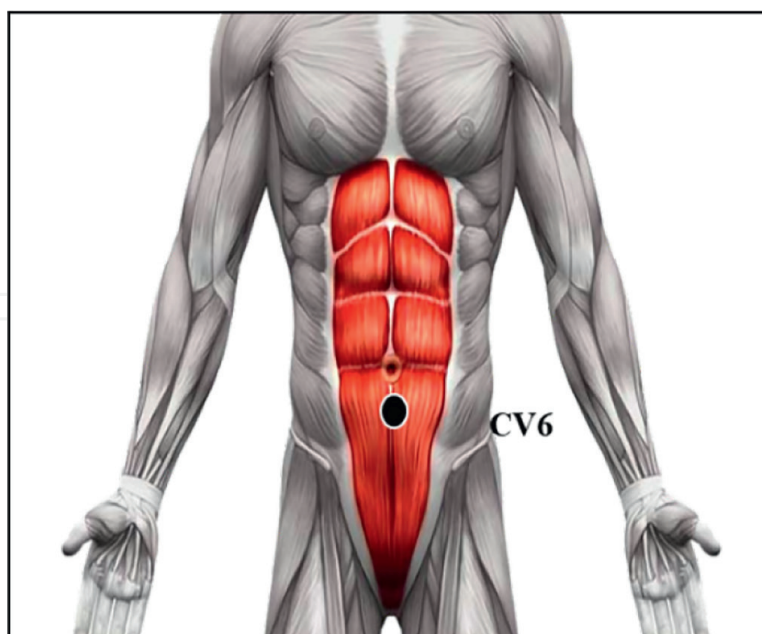
**Figure 5.**  
*UB25 location of acupressure.*



**Figure 6.**  
*Acupressure location of L.I.14.*

### 3.12 CV6

CV6, also known as the Sea of Energy, is considered to be one of the most effective acupressure spots for the treatment of irritable bowel syndrome. It is a longevity point that may be helpful in boosting the general health of the body. This point is situated near the center of the lower abdomen, two finger widths below the belly button. Stimulating this spot gently with a soft circular motion stimulates and strengthens the large intestine, which aids in the relief of constipation, IBS, abdominal cramps, and stomach discomfort (Figure 7) [63].



**Figure 7.**  
*CV6 site of acupressure.*

#### **4. A SUMMARY of many studies on acupuncture, acupressure, and herbal medications**

Various clinical trials proven that Acupuncture, acupressure, and herbal medications are safe and effective in the management of irritable bowel syndrome (**Table 2**).

#### **5. Summary**

Irritable bowel syndrome (IBS) is a functional gastrointestinal disorder that affects a large percentage of people. The current diagnostic criteria for IBS include the presence of a characteristic symptom profile (abdominal pain or discomfort, bloating or distension, and alterations in defecatory function). Although the pathophysiology of IBS is not fully understood, it is hypothesized that nutrition, gene mutations, psychosocial factors, and immune-mediated mechanisms all have a role. The pathogenesis of IBS is thought to be influenced by visceral hypersensitivity and dysregulation of central pain perception in the brain-gut axis. There is currently no known cure for IBS, and treatment options might vary. Avoiding certain foods, using bulk laxatives and stool softeners for constipation, antimotility drugs for diarrhea, and antispasmodics, antimuscarinics, and antidepressants for pain and spasm are all components of conventional symptom management. As a result, more than 80% of people in developing countries rely on herbal medicine and other alternative therapies for their primary medical needs. This is because there have been so few reports of adverse effects from patients receiving conventional treatment, so they are turning to alternative treatments such as herbal drugs, acupuncture, and acupressure. The Cochrane Library published a study in 2006 that claimed herbal therapy may be able to reduce IBS symptoms. Herbal medicine is made up of a wide number of unique compounds, each of which is capable of operating on a diverse range of targets and, in some instances, performing more successfully when coupled with other compounds.

AUTHOR	CONDITION	DESIGN	INTERVENTION	OUTCOME	MECHANISM	REFERENCE
Zheng H et al.	Irritable Bowel Syndrome	Randomized Controlled trials	Analysis comprised 41 RCTs with 3340 participants.8 RCTs compared acupuncture to sham acupuncture; among which 3 trials verified acupuncture's biological benefit, mainly in treating stomach pain, discomfort and stool frequency.	Acupuncture had no benefits over sham controls in treating IBS while the advantage over western medicine was significant.	Acupuncture	[60]
Pei L et al.		Randomized Controlled trials	In this study participants in each group were randomly randomized to receive acupuncture (18 session) or PEG 4000 (20 g/d for IBS-C)/ pinaverium bromide (150 mg/d for IBS-D) in a 2:1 ratio over a 6-week period.	For the treatment of IBS acupuncture may be more successful than PEG 4000 or pinaverium bromide with result lasting up to 12 weeks	Acupuncture	[12]
Miri B M et al.	Irritable Bowel Syndrome	Randomized Double blinded Controlled trials	In this study, 15 and 65 -year – olds with Rome -III -diagnosed IBS were selected. Control patient were given three tablets of 10 mg hyoscine butyl bromide daily. The participants in the intervention group were daily treated with two 25 mg herbal medicine (Soft gel) capsule containing sunflower oil (28%) as an excipient and pure essentials oils of Zataria multiflora Boiss (28.8%), Anethum graveolens (21.6%) and Trachyspermum ammi (21.6%) for two weeks).	The result of this study showed that the herbal medication was much more effective than hyoscine in relieving the symptoms of IBS	Herbal medicine (Antiseptic, carminative and antispasmodic)	[61]

AUTHOR	CONDITION	DESIGN	INTERVENTION	OUTCOME	MECHANISM	REFERENCE
Madisch A et al.	Irritable Bowel Syndrome	Double blind, Randomized placebo Controlled multi-centre trials	In this study two hundred and eight IBS sufferers were randomly allocated to one of four treatments: commercially available herbal products STW 5 (n = 51), research herbal preparations STW 5-II (n = 52), bitter candytuft mono – extract (n = 53) or placebo (n = 52).	The result indicates that STW 5, a commercially available herbal product, and STW 5-II, a research formulation, are both beneficial in treating irritable bowel syndrome symptoms.	Clarifications is required regarding the exact workings of the action mechanism.	[62]
Van Tilburg MA et al.	Irritable Bowel Syndrome	Double blind Randomized Controlled trials	Forty -five patients suffering from irritable bowel syndrome (IBS) were divided into three groups given a placebo, on gram of the ginger, or two grams of ginger each day for a period of 28 days.	This study found that ginger was well tolerated but did not perform better than placebo	Ginger (antiemetic, analgesic, sedative, anti-bacterial)	[63]
Liu JH et al.	Irritable Bowel Syndrome	Randomized, Double blind, placebo Controlled trial	In a clinical trial involving 110 people who suffer from irritable bowel syndrome. The peppermint oil was administered three to four times per day, 15 to 30 minutes before meals, for a period of one month	Patients in the active treatment group felt much less pain and discomfort than those in the placebo group. Therefore, peppermint oil was useful in this experiment, and it was well tolerated by the participants.	Peppermint oil (antispasmodic, anti-inflammatory effect)	[17]
Bijerk DW et al.	Irritable Bowel Syndrome	Randomized placebo Controlled trial	In a study conducted by Bijkerk et al. (2009), the dietary intake of soluble fiber (psyllium, 10 grams, n = 85), or insoluble fiber (bran, 10 grams, n = 97), was analyzed in 275 individuals diagnosed with irritable bowel syndrome (IBS).	They demonstrated that patients in the psyllium group experienced a reduction in the intensity of their symptoms that was 90 points more than what was seen in the bran group three months following therapy. They suggested that people in primary care who suffer from IBS might benefit from using psyllium.	Psyllium (the fiber contents increase the weight and size by soften it, A bulky stool is easier to pass and it reduce the chance of constipation)	[18]



AUTHOR	CONDITION	DESIGN	INTERVENTION	OUTCOME	MECHANISM	REFERENCE
Bundy R et al.	Irritable Bowel Syndrome	Partial blinded, Randomized, two dose, pilot study	An eight-week, partly blinded, randomized, two-dose pilot investigation evaluating turmeric extract's effects on individuals with irritable bowel syndrome, two hundred and seven (207) suitable volunteers were randomized.	Approximately two thirds of all patients reported a reduction in the severity of their symptoms after receiving turmeric extract	Turmeric (anti-inflammatory effect, suppress proinflammatory molecules in the gut)	[32]
Rahimi R et al.	Irritable Bowel Syndrome	Randomized, double-blind, placebo-controlled trial	The randomized, double-blind, placebo-controlled trial was conducted in IBS patients over a period of 18 weeks using the whole plant of Fumaria officinalis.	The fumitory group experienced a greater reduction in the discomfort associated with IBS compared to the placebo group. Distension caused by IBS was enhanced in the fumitory group whereas it was reduced in the placebo group.	F. officinalis (Anti-spasmodic, anti-inflammatory)	[19]

**Table 2.**  
Summary of different clinical trials on acupuncture, acupressure, and herbal medications.

Herbal medicine may be broken down into three categories: It is believed that they are excellent complementary treatments for disorders that affect the functional gastrointestinal tract. Herbal medicine has a wide variety of compounds, each of which might act on a different target, potentially in a synergistic effect.

Acupuncture and acupressure are the most famous alternative medicine techniques that have been used for digestive system disorders. It may impact the visceral system by activating the somatic system in accordance with the visceral hyperalgesia theory of the central nervous system. When pressure is applied to this region, it may help ease symptoms of irritable bowel syndrome such as pain in the stomach, lack of appetite, diarrhea, bloody stool, abdominal distension, constipation, and bloating.

The herb has numerous uses in Ayurvedic medicine. It is used to treat liver ailments, stomach diseases, and digestive issues, as well as to stimulate the digestive system. Every herb that is used in the treatment of irritable bowel syndrome serves a different purpose. For example, curcuma longa and Zingiber officinale work as anti-inflammatory, while Aloe barbadensis has both laxative effects and anti-inflammatory properties. Whereas peppermint oil decreases gastric motility by directly acting on gut calcium channels to relax gastrointestinal smooth muscle.

Artichoke works as a bitter, and so on. Several clinical trials have shown that these herbs are beneficial in treating irritable bowel syndrome, with minimal adverse effects, and are more cost-effective than traditional medications, which only provide short-term relief.

In patients with irritable bowel syndrome, the practice of acupressure and acupuncture has been shown to have numerous additional beneficial effects on stomach distress and bowel movement. Regularity of bowel movements and hypersensitivity. Irritable bowel syndrome can be managed by applying pressure to certain acupoints throughout the body. These acupoints include SP4 for stomach discomfort, bloody stool, and abdominal distension; UB25 as well as CV6 for abdominal distension and constipation; CV12 alleviates gastrointestinal distress and slows down the rate of colonic transit. Whereas ST 36 accelerates the rate of intestinal transit in IBS-C patients.

## **6. Conclusion**

Since the beginning of the 21st century, herbal medication, acupuncture, and acupressure have captivated both medical professionals and patients around the world. This is due to a number of factors, including the simplicity of their use, their efficacy, and their cost-effectiveness, as well as the fact that conventional medications can cause a greater number of unwanted side effects, such as impaired vision and dry mouth. Alternative and complementary medicine (CAM) therapies are the true culture-based treatments that are used in countries all over the globe. Herbal medications, acupuncture, and acupressure are nonpharmacological interventions that are used in the treatment and management of irritable bowel syndrome. These treatments provide patients with a multitude of benefits and functions that are beneficial for this condition.

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### **Author details**

Ankita Wal<sup>1\*</sup>, Biplab Debnath<sup>2</sup>, Neha Verma<sup>1</sup>, Sumanta Bhattacharya<sup>3</sup>,  
Rahul Shivajirao Solunke<sup>4</sup>, Mohd Masih Uzzaman Khan<sup>5</sup> and Pranay Wal<sup>1</sup>

1 Pranveer Singh Institute of Technology, UP, India

2 Bharat Technology, Uluberia, West Bengal, India

3 Research Scholar Department of Textile Technology, MAKAUT, West Bengal, India


4 Department of Pharmaceutics, Maharashtra College of Pharmacy, Latur, India

5 Department of Pharmaceutical Chemistry and Pharmacognosy, Unaizah College of Pharmacy, Unaizah, Saudi Arabia

\*Address all correspondence to: walankita@gmail.com

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