

Clinical Report 1 (Acupuncture)

Acupuncture Treatment for Irritable Bowel Syndrome (IBS-D): A Case Report

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Summary

This case study report introduces how acupuncture treatment on an IBS-D patient led to an improvement in stool form and health-related QOL.

Case: 75-year-old man.

Chief complaint: Diarrhea. The patient has been experiencing frequent symptoms of diarrhea since early in life, but the symptoms worsened from around a year ago, so he visited the hospital, where he was diagnosed with irritable bowel syndrome (IBS). His condition improved temporarily by taking an internal medicine, but because continuous use of the medicine caused constipation and nausea, the internal medicine was discontinued, and his doctor referred him to acupuncture treatment. As a subjective symptom, the patient mostly passes watery stool and loose stool on rare occasions. He defecates three to four times a day. He has discomfort in his abdominal region, and tends to accumulate gas. His diarrhea symptoms intensify when he consumes irritating foods such as chocolate, spicy foods, and alcohol. The progress of treatment was evaluated using a stool diary that contains a record of the patient's daily bowel movements, and also by SF-36.

Result: The patient's stool mostly changed from watery to loose stool from around two weeks of receiving acupuncture treatment. In the third week of treatment, he produced regular stool once. In the eighth week, the frequency of watery stool decreased and that of loose stool increased. The patient's SF-36 subscale score increased in the tenth week of treatment compared to his initial visit before treatment.

Observation: With IBS, it is reported that improving QOL is extremely important, even if no

significant change is observed in stool form. Judging from the result of the above case example, it is thought that acupuncture treatment is effective in achieving a slight improvement in stool form and improving health-related QOL in IBS-D patients.

Keywords: Acupuncture, irritable bowel syndrome, diarrhea-predominant, SF-36, QOL

1. Introduction

Irritable bowel syndrome (IBS) is a functional disease that is accompanied by bowel movement disturbance and discomfort or pain in the abdominal region, and causes a marked decline in QOL. It occurs commonly, and is prevalent at a rate of around 15% among the general population in developed countries^{1) 2)}. Acupuncture treatment is rendered with the aim of regulating bowel movement and mitigating the various physical symptoms of bowel movement disturbance³⁾. In recent years, the effectiveness of acupuncture treatment has been reported in a number of clinical studies^{4) 5)}, but they do not discuss its effects according to the subtype of stool forms. Based on the understanding that reporting on the clinical results of acupuncture treatment by subtype would benefit clinical studies of acupuncture treatment, this paper introduces a case example in which acupuncture treatment was shown to be effective against diarrhea-predominant IBS.

2. Case example

1) Case example: 75-year-old man (height 165cm; weight 49kg; BMI 18.0; slender)

2) Chief complaint: Diarrhea

3) History of present illness:

The patient has been experiencing frequent symptoms of diarrhea since early in life, with the symptoms often intensifying during summer.

X-31 years: A constant intake of alcohol and spicy foods aggravated the patient's diarrhea symptoms to the point that he developed a hemorrhoid, so he consulted a local doctor, who diagnosed him with

anal fistula. The patient was prescribed an ointment, and the symptoms abated, but thereafter, he suffered diarrhea whenever he ate irritating foods, and tended to experience a prolapsed hemorrhoid when he strained.

X-4 years: The diarrhea symptoms worsened, so the patient received a colon fiberscope inspection at a local proctology hospital, but no organic disturbance was found. The patient had been taking an antifatulent when his diarrhea symptoms worsened, but stopped taking it when he began to experience stomach pain.

X-1 year: The diarrhea symptoms worsened, so the patient consulted a hospital, where he was diagnosed with irritable bowel syndrome. He was prescribed Irribow tablet, albumin tannate, and Coronel, and the symptoms abated. However, continued use of these drugs caused constipation and nausea, so the patient stopped taking them after six months.

X: The patient's diarrhea and prolapsed hemorrhoid worsened with an excessive intake of chocolate, so the patient visited our Center for Integrative Medicine. He was prescribed Kampo medicine (Tsumura No. 3 Otsujiyu and Tsumura No. 32 Ninjinto) and Bio-Three powder, but stopped taking them because they made him feel poorly. At the request of the Kampo doctor, he agreed to receive acupuncture treatment.

4) History of past illnesses: None in particular

5) Social history:

The patient has engaged in bicycle sales for a long time. Even after retiring, people in his neighborhood sometimes come to see him to have their bicycles repaired.

6) Present symptoms:

(1) Subjective symptoms: The patient defecates three to four times a day, but his stool is mostly watery and sometimes loose. He has discomfort in his abdominal region, and tends to accumulate gas. His diarrhea symptoms intensify when he consumes irritating foods such as chocolate, spicy foods, and alcohol. He always experiences a prolapsed hemorrhoid

whenever he defecates. He also experiences a prolapsed hemorrhoid sometimes when he urinates. For this reason, when he has an urge to defecate, he frequently rushes to the bathroom with his hand on his anus. He also prolapses when engaging in standing work for a long time or when walking.

(2) Objective findings: In a palpation examination, strong muscle tone was found in the abdominal rectus muscle. There were chills in the feet. Tenderness was found from the patient's chest to the erector spinae muscle. The tenderness is felt more strongly on the left side. There is no left-right difference in the dorsal artery of the patient's feet and posterior tibial artery, and both are normal.

7) Evaluation method:

The patient was asked to keep a stool diary and record stool forms and daily bowel movements. SF-36 was also used for a comprehensive evaluation of health-related Quality of Life (QOL). It is composed of 36 items in 8 subscales, namely physical functioning (PF), role-physical (RP), body pain (BP), general health (GH), vitality (VT), social functioning (SF), role-emotional (RE), and mental health (MH)⁶. The higher the scores of each subscale means the better the patient's condition. The evaluation was performed at the patient's initial visit, and five and ten weeks after commencement of treatment.

8) Acupuncture treatment:

The following treatment was provided at an interval of once a week, with the aim of mitigating the patient's diarrhea symptoms and prolapsed hemorrhoid and maintaining his health.

Needle retention (length 40mm; diameter 0.16mm; stainless steel needles) for 10 minutes on Zhongwan (CV12), Qihai (CV6), Tianshu (ST25), Dadu (SP2), Shangqiu (SP5), Sanyinjiao (SP6), Taichong (LR3), Dachangshu (BL25), Shenshu (BL23), Weishu (BL21), and Sanjiaoshu (BL22) 3 bulb moxa on Sanyinjiao (SP6), 7 heat transmitting moxa on Baihui

3. Result

1) Stool form

From around two weeks after commencement of acupuncture treatment, the patient's stool mostly changed from watery to loose stool. He also produced regular stool once in the third week of treatment. However, from the fourth week, watery stool reappeared frequently. In the eighth week, the watery stool decreased, and the patient mostly passed loose stool. His urination frequency also decreased.

2) Health-related QOL

At the time of his initial visit, all eight of the patient's subscale scores fell below the Japanese standard. In the fifth week, MH increased by 5 points. In the tenth week, all subscale scores increased, and an improvement in QOL was seen (Figure 2). It is noteworthy that the scores for RP, SF, RE and MH surpassed the Japanese standard.

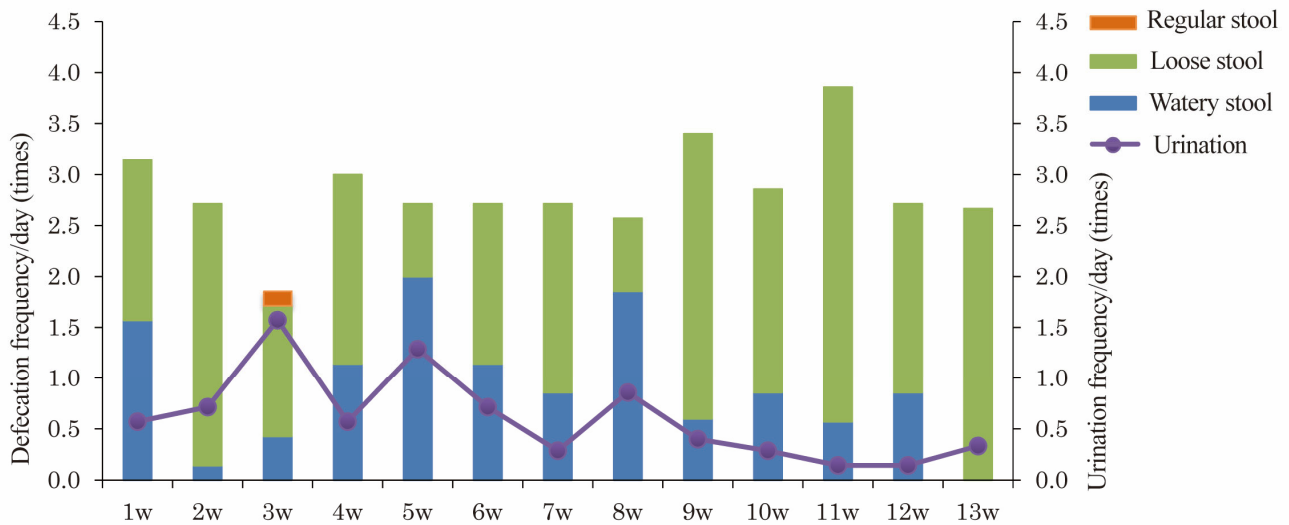


Figure 1: Daily defecation frequency, stool form and urination frequency

Figure 1 shows weekly average defecation and urination frequencies based on a record of daily

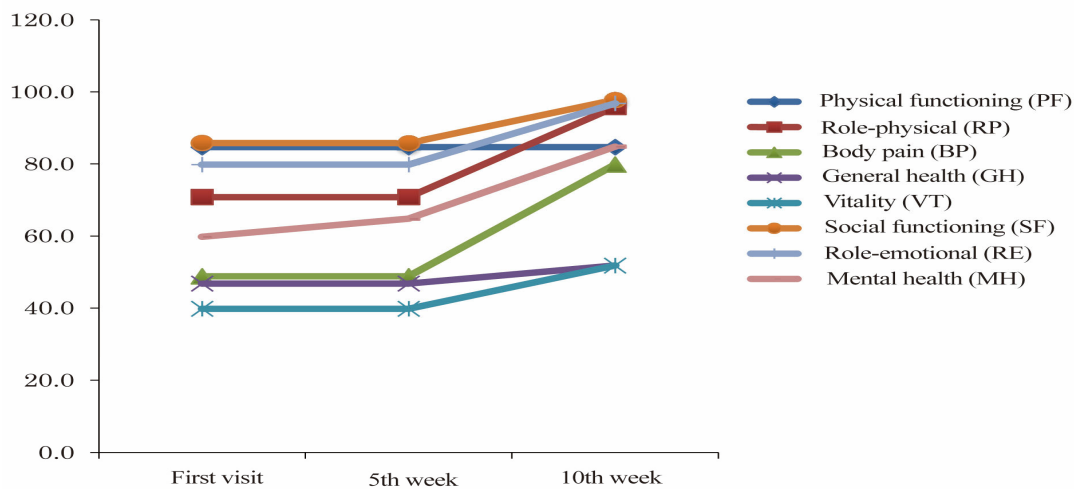


Figure 2: SF-36

Figure 2 shows the scores of the eight subscales of SF-36. An improvement was observed in the 10th

4. Observations

1) IBS pathology and this case example

Based on the Rome III diagnostic criteria, IBS is classified as a disease in which abdominal pain or discomfort in the abdominal region occurs for more than three days in a month within the latest three months, and accompanies at least two of the following three conditions: the abdominal pain or discomfort in the abdominal region (1) is mitigated by defecation, (2) is brought on by a change in defecation frequency, or (3) is brought on by a change in stool form (appearance). IBS is furthermore classified into four subtypes using the Bristol Stool Form Scale: (1) constipation-predominant IBS (IBS-C), (2) diarrhea-predominant IBS (IBS-D), (3) mixed IBS (IBS-M), and (4) unsubtyped IBS (IBS-U)^{7) 8)}. The IBS case example introduced here is classified as IBS-D, as the patient's stool is mostly watery stool.

Generally, the pathophysiology of IBS accompanying abdominal pain, abdominal discomfort and bowel movement disturbance falls into a negative cycle by a dysesthesia in the digestive tract, dyskinesia or psychological disorder such as depression and anxiety, via gut-brain interaction^{9) 10)}. Additionally, IBS undermines QOL²⁾. In the case example introduced here, SF-36 evaluation revealed a decrease in QOL.

2) Treatments for IBS and acupuncture treatment

Diarrhea-predominant IBS is commonly treated using a serotonin 5-HT₃ receptor antagonist. As side effects, it sometimes causes thirst, nausea in some instances, vomiting and constipation. In the case example as well, symptoms of side effects appeared, and the internal medication was stopped. There are also patients who refuse Western medical drug treatment because of the symptoms that appear other than their chief complaint. Meanwhile, acupuncture and moxibustion treatment have few side effects, and imposes minimum burden on the patient's body. For this reason, patients with a

chronic illness can receive acupuncture treatment on a continuous basis.

In this case example, acupuncture treatment increased the rate at which the patient's stool form changed from watery to loose stool. His urination frequency also decreased, but he hardly produced regular stool. At the same time, however, the eight subscales of SF-36 all increased, indicating acupuncture treatment's contribution to improving QOL. Furthermore, the acupuncture treatment produced no adverse events. Matsumoto et al.¹¹⁾ report that in acupuncture treatment against IBS, improving QOL is essential, even if no significant change is observed in stool form. From the result of the case example, it is thought that providing acupuncture treatment is effective in achieving a slight improvement in stool form and improving health-related QOL in IBS-D patients.

In recent years, there have been a number of clinical studies⁴⁾ that show the effectiveness of acupuncture treatment in improving QOL among IBS patients and basic studies^{12),13)} on the mechanism of the effect of acupuncture. However, at the same time, systematic reviews conclude that there are no rational grounds for supporting the use of acupuncture treatment to treat the symptoms of irritable bowel syndrome¹⁴⁾. As most clinical studies that have been conducted to date have been small in scale, it is necessary to hereafter examine the effectiveness of acupuncture by conducting a large-scale clinical study and performing an analysis according to severity, subtype, and other such factors.

5. Conclusion

Acupuncture treatment applied to a diarrhea-predominant IBS patient led to a slight improvement in stool form and an improvement in health-related QOL.

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