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Review on the acupuncture and moxibustion in the treatment of Crohn's disease

Xie J *et al.* Review of CD on acupuncture

Abstract

Crohn's disease(CD) is a kind of intestinal inflammatory disease invading any part of the gastrointestinal tract and the incidence rate of CD is gradually increasing worldwide. Acupuncture and moxibustion have unique curative effects on gastrointestinal diseases and can be new options for the treatment of CD.

Key Words: Crohn's disease; Acupuncture; Moxibustion; Treatment; Review

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Core Tip: Crohn's disease (CD) can invade any part of the gastrointestinal tract, especially the terminal ileum and the ascending colon, and is collectively known as inflammatory bowel disease with ulcerative colitis. The incidence rate of CD is gradually increasing worldwide. This letter mainly introduces that acupuncture has a unique curative effect on CD and can provide a new research direction for the treatment of CD.

TO THE EDITOR

Crohn's disease (CD) can invade any part of the gastrointestinal tract, especially the terminal ileum and the ascending colon, and is collectively known as inflammatory bowel disease (IBD) with ulcerative colitis. The main symptoms include abdominal pain, diarrhea, fistula, intestinal obstruction, fever, emaciation, and nutritional disorders. In the past three decades, the incidence rate of CD has gradually increased worldwide at an annual growth rate between 4%-15%, which warrants our attention^[1]. Currently, biological therapy is the preferred treatment for CD, and the commonly used biological agents such as infliximab and adalimumab have brought significant benefits to the patients. With multiple biological agents at their disposal, clinicians can, according to different symptoms, choose drugs with different anti-inflammatory

mechanisms. However, despite the undisputed efficacy of these agents, a significant proportion of patients fail to receive effective treatments. For example, many patients do not respond to induction therapy or lose the response after initial improvements. As traditional Chinese medicine therapies, acupuncture and moxibustion have a long history in treating gastrointestinal diseases and significant advantages against symptoms such as abdominal pain, diarrhea, fatigue, and anorexia. Therefore, we sought and summarized articles about clinical acupuncture and moxibustion treatment for CD to explore their unique advantages.

Using keywords such as acupuncture, CD, and clinical trials, we searched PubMed for clinical trials of acupuncture and moxibustion in the treatment of CD up to February 28, 2020, and found four articles that met the criteria. The four articles we found and retrieved showed that acupuncture and moxibustion had curative effects on CD. Joos *et al*^[2]'s randomized controlled trial confirmed that after 4 wk of treatment, the CD activity index (CDAI) of the acupuncture group showed a significantly larger ($P = 0.003$) decrease (from 250 ± 51 to 163 ± 56) than that of the groups without acupuncture (from 220 ± 42 to 181 ± 46). Bao *et al*^[3]'s 12-wk trial with the treatment group undergoing herb-partitioned moxibustion combined with acupuncture (HMA) and the control group receiving wheat bran partitioned moxibustion combined with superficial acupuncture showed a significantly higher ($P = 0.000$) total treatment efficacy of the treatment group at 83.72% compared to 40.48% of the control group and a significantly lower ($P = 0.000$) CDAI in the treatment group than that of the control group. Both clinical trials demonstrated that acupuncture combined with moxibustion significantly reduced the CDAI in the patients and significantly improved their quality of life. Shang *et al*^[4] conducted a clinical trial with one group receiving HMA and the other group treated with mesalazine (MESA). After 12 wk of treatment, the expression of ZO-1 mRNA in the HMA group was significantly improved compared with the MESA group (2378.17 ± 308.77 vs 2200.56 ± 281.88 ; $P = 0.023$), confirming that HMA can repair the intestinal epithelial barrier by up-regulating the expression of tight junction protein and its mRNA, thus reducing the intestinal inflammatory response in CD patients. Horta *et al*^[5]

investigated whether electroacupuncture (EAc) therapy could relieve fatigue in patients with IBD by allocating 52 patients into the EAc, sham EAc (ShEAc), and waitlist (WL) groups. Evaluation with the IBD-validated Functional Assessment of Chronic Illness Therapy-Fatigue Scale showed reduced fatigue scores in patients of the EAc and ShEAc groups after eight weeks of treatment and significantly better curative effects in the two groups than that in the WL group.

According to these four clinical trials, acupuncture treatment tends to attenuate symptoms such as abdominal pain, diarrhea, and fatigue in patients with CD. Therefore, acupuncture and moxibustion therapy may potentially improve the physical and mental health of CD patients. Unfortunately, clinical trials of acupuncture for CD with relatively long-term observation and a large sample are still lacking. Other than Chinese researchers, few studies on treating CD with acupuncture, and more evidence is required to support the application of acupuncture and moxibustion therapies in treating CD and verify their potential benefits.

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SIMILARITY INDEX

PRIMARY SOURCES

1	www.science.gov Internet	23 words — 3%
2	Bao, Chun-Hui. "Randomized controlled trial: Moxibustion and acupuncture for the treatment of Crohn's disease", World Journal of Gastroenterology, 2014. Crossref	21 words — 2%