

Review of the Relationship between the Acupuncture Analgesia and Placebo Effects

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Abstract

Acupuncture is an important part of traditional Chinese medicine. With the internationalization of traditional Chinese medicine, some researchers have proposed that acupuncture is only a placebo effect. Using research studies on the relationship between the placebo effect and the effect of acupuncture analgesia, this paper compares the mechanisms of the two effects, summarizes current research, and identifies problems to provide ideas for future research.

Keywords: *Acupuncture Analgesia; Placebo Effect; Expected Value*

The specific effect of acupuncture analgesia is controversial

Acupuncture is an important part of traditional Chinese medicine. It is widely used in the treatment of various clinical diseases because of its low cost, non-toxic side effects, and other advantages. With the internationalization of traditional Chinese medicine, foreign scholars have carried out a large number of randomized controlled studies on acupuncture and moxibustion. Some authors of these studies have proposed that acupuncture and moxibustion do not have specific efficacy, and that their therapeutic effect is not superior to sham acupuncture or placebo acupuncture [1-3].

A non-specific effect refers to other effects that may affect the final outcome after excluding specific effects that have a causal relationship with efficacy [4]. Non-specific effects are also considered expectant or placebo effects.

Placebo effect and acupuncture analgesia mechanism

At present, the mechanism of the placebo effect is explained by classical conditioned reflex theory [5], expected response theory [6] and psychoneuroimmune response theory. Levine [7], Amanzi and other [8] scholars have proposed and confirmed that the endogenous opioid peptide system mediates the placebo analgesic effect. Han Jisheng [9] has suggested that the opioid peptide system is the most important biological basis of acupuncture analgesia. Therefore, some scholars believe that both placebo and acupuncture analgesic effects are mediated by the opioid peptide system and that their mechanisms are similar, so it is difficult to separate them for comparative study [10].

Clinical research on the relationship between acupuncture analgesia and placebo effects

In recent years, there have been many clinical experiments on whether the expectant effect is related to the acupuncture effect and how it affects the acupuncture effect. However, these findings are varied and often controversial owing to the complicated psychological

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and social factors related to patients, medical staff, and medical environment, as well as the different diagnostic, operational, and treatment methods of acupuncture.

Most scholars have used sham acupuncture or comfort acupuncture as controls to study the relationship between acupuncture analgesia and the placebo effect [11,12]. However, the mechanisms of acupuncture and moxibustion remain unclear, which makes it difficult to identify a standard and unified false acupuncture and moxibustion control method in line with the placebo standard, which is one of the reasons for the research controversy in this area.

Some scholars take patient expectation as a starting point. For example, patients who have a strong expectation of an acupuncture effect will eventually experience a better clinical effect. Therefore, some studies have examined the presence and intensity of reverse-placebo effects of acupuncture [13,14]. One systematic analysis and review of 16 articles showed that 8 concluded that a higher acupuncture expectation value could obtain a better clinical effect, 1 came to the opposite conclusion, and the remaining 7 suggested that acupuncture expectation value had no significant relationship with clinical effect [15].

Conclusion

As a traditional Chinese medicine, acupuncture has a unique theoretical system that emphasizes the concepts of holism, syndrome differentiation, and treatment. There are some contradictions between the research methods of acupuncture and its guiding ideology in modern medicine. According to the new medical model of biosocial psychology, these factors should be better integrated. Future work should make efforts to identify a suitable and unified “false acupuncture” control method and strengthen the integration between acupuncture and psychology to develop better clinical treatment plans.

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Conflict of Interest

The authors declare that they have no competing interests.

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