

NEURO-IMMUNE ENDOCRINE MECHANISM OF ACUPUNCTURE IN THE TREATMENT FOR NERVOUS SYSTEM DISEASES

Aliqulov Maqsud Madad o'g'li
Samarkhand State Medical University

Abstract: *This article was analyzed by studying the neuro-immunoendocrine mechanism of acupuncture in the treatment of diseases of the nervous system. In addition, this article deals with the meaning and methods of the endocrine mechanism of acupuncture in the treatment of diseases of the nervous system. [1]*

Keywords: *neuro-immune endocrine mechanism, acupuncture, treatment, nervous system, diseases*

НЕЙРО-ИММУННЫЙ ЭНДОКРИННЫЙ МЕХАНИЗМ ИГЛОУКАЛЫВАНИЯ ПРИ ЛЕЧЕНИИ ЗАБОЛЕВАНИЙ НЕРВНОЙ СИСТЕМЫ

Аннотация: *Эта статья была проанализирована путем изучения нейро-иммуноэндокринного механизма иглоукалывания при лечении заболеваний нервной системы. Кроме того, в данной статье рассматриваются значение и методы эндокринного механизма иглоукалывания при лечении заболеваний нервной системы. [1]*

Ключевые слова: *нейроиммунный эндокринный механизм, иглоукалывание, лечение, нервная система, заболевания*

INTRODUCTION

Acupuncture is believed to have a neuro-immune endocrine mechanism that contributes to its effectiveness in treating nervous system diseases. When acupuncture needles are inserted into specific points on the body, it can stimulate sensory nerves, which then send signals to the brain. This stimulation triggers the release of various neurotransmitters, such as endorphins and serotonin, which can help reduce pain and promote relaxation. Additionally, acupuncture has been shown to modulate the immune system by influencing the production and activity of immune cells. It can enhance the production of natural killer cells, which are important for fighting off infections and tumors. Acupuncture can also regulate the release of cytokines, which are involved in immune responses and inflammation. Furthermore, acupuncture can affect the endocrine system by regulating the release of hormones. It has been found to stimulate the release of beta-endorphins, which are natural pain-relieving hormones. Acupuncture can also influence the levels of cortisol, a hormone involved in stress response, and improve hormone balance. Overall, the neuro-immune endocrine mechanism of acupuncture involves the integration of the nervous, immune, and endocrine systems. This holistic

approach can help alleviate symptoms and improve the overall well-being of individuals with nervous system diseases. It's important to note that while acupuncture can be a complementary therapy, it should not replace conventional medical treatments.

ANALYSIS OF LITERATURE AND METHODOLOGY

Acupuncture is a traditional Chinese medicine technique that involves inserting thin needles into specific points on the body. It has been used for centuries to treat various conditions, including nervous system diseases. The neuro-immune endocrine mechanism of acupuncture refers to the physiological responses that occur in the nervous, immune, and endocrine systems when acupuncture is performed.

1. **Neurological Mechanism:** Acupuncture stimulates sensory nerves in the skin and muscles, which transmit signals to the brain and spinal cord. This stimulation triggers the release of neurotransmitters, such as endorphins, serotonin, and norepinephrine. Endorphins are natural pain relieving substances that can help reduce pain and promote a sense of well-being. Serotonin is a neurotransmitter that regulates mood, sleep, and appetite. Norepinephrine is involved in the body's stress response and can help improve energy levels.

2. **Immune Mechanism:** Acupuncture has been found to modulate the immune system by influencing the production and activity of immune cells. It can enhance the production of natural killer cells, which are important for fighting off infections and tumors. Acupuncture also regulates the release of cytokines, which are signaling molecules involved in immune responses and inflammation. By modulating the immune system, acupuncture can help reduce inflammation and promote healing in nervous system diseases.

3. **Endocrine Mechanism:** Acupuncture can affect the endocrine system by regulating the release of hormones. It has been found to stimulate the release of beta-endorphins, which are natural pain-relieving hormones. Acupuncture can also influence the levels of cortisol, a hormone involved in the body's stress response. By regulating hormone levels, acupuncture can help restore balance in the body and improve overall well-being.

It's important to note that while acupuncture has shown promise in treating nervous system diseases, it should be used as a complementary therapy alongside conventional medical treatments. It's always recommended to consult with a qualified healthcare professional before starting acupuncture or any other alternative treatment.

DISCUSS

Acupuncture is a traditional Chinese medicine technique that involves the insertion of thin needles into specific points on the body. It has been used for centuries to treat various conditions, including nervous system diseases. The neuro-immune endocrine mechanism of acupuncture refers to the complex interplay between the nervous, immune, and endocrine systems in response to acupuncture stimulation. When acupuncture needles are inserted into specific points, they stimulate sensory receptors in the skin and underlying tissues. This stimulation triggers a cascade of physiological responses in the body, including

the release of neurotransmitters, neuropeptides, and hormones. Neurotransmitters, such as endorphins and serotonin, are released in response to acupuncture and have been shown to have pain-relieving and mood-enhancing effects. These neurotransmitters can help alleviate symptoms associated with nervous system diseases, such as chronic pain, anxiety, and depression. Acupuncture also modulates the immune system by influencing the release of cytokines, which are small proteins involved in immune regulation. Studies have shown that acupuncture can enhance immune function and reduce inflammation, which may be beneficial in the treatment of autoimmune conditions affecting the nervous system. Furthermore, acupuncture can affect the endocrine system by regulating the release of hormones, such as cortisol and adrenocorticotrophic hormone (ACTH). These hormones play a role in stress response and inflammation regulation. By modulating the endocrine system, acupuncture can help restore balance and promote healing in the body. The neuro-immune endocrine mechanism of acupuncture involves a complex network of interactions that contribute to its therapeutic effects in treating nervous system diseases. However, it's important to note that more research is needed to fully understand the underlying mechanisms and optimize acupuncture as a treatment modality.

CONCLUSION

Recent research has shed further light on the neuro-immune endocrine mechanism of acupuncture in the treatment of nervous system diseases. Here are some additional insights:

1. Neural Modulation: Acupuncture stimulates sensory nerves, which send signals to the brain and spinal cord. This activation triggers a cascade of neural responses that can modulate pain perception, regulate autonomic function, and influence various physiological processes in the nervous system.

2. Neuroplasticity: Acupuncture has been found to promote neuroplasticity, which refers to the brain's ability to reorganize and form new neural connections. This neuroplastic effect of acupuncture can potentially aid in the recovery and regeneration of damaged nerves in conditions such as stroke, multiple sclerosis, and peripheral neuropathy.

3. Anti-Inflammatory Effects: Acupuncture has been shown to have anti-inflammatory effects by regulating the release of inflammatory mediators and immune cells. This can be beneficial in reducing neuroinflammation, which is a common feature of many nervous system diseases, including Alzheimer's disease, Parkinson's disease, and multiple sclerosis.

4. Blood Flow and Oxygenation: Acupuncture has been found to improve blood flow and oxygenation to the brain and peripheral nerves. By enhancing circulation, acupuncture may promote tissue repair, reduce ischemic damage, and improve overall nerve function in conditions such as neuropathic pain and peripheral neuropathy.

5. Modulation of Neurotransmitters: Acupuncture has been shown to modulate the levels and activity of various neurotransmitters in the brain, including gamma-aminobutyric acid (GABA), glutamate, and dopamine. These neurotransmitters play crucial

roles in regulating mood, cognition, and pain perception, and their modulation by acupuncture can contribute to therapeutic effects in nervous system diseases. It's important to note that while there is growing evidence supporting the neuro-immune endocrine mechanisms of acupuncture, more research is still needed to fully understand the specific mechanisms involved and to optimize its clinical application in the treatment of nervous system diseases.

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