



## Acupuncture for Allergic Asthma: A Case Report

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### Abstract

After 4 weeks of acupuncture treatment, the patient had significantly reduced total serum IgE and asthma symptom episodes, and the Asthma Quality of Life Questionnaire (AQLQ) and the Asthma Control Test (ACT) scores were increased. In addition, no adverse reactions were observed.

**Keywords:** Acupuncture; Case report; Allergic asthma; ACT; AQLQ

### Background

A 40-year-old female patient with allergic asthma complained of cough, chest tightness and shortness of breath for 2 weeks. For acupuncture treatment of bilateral HT3 (Shaohai), HT6 (Yinxi) and HT7 (Shenmen) acupoints for 4 weeks, the clinical symptoms were significantly relieved and the symptoms were maintained for a long time.

Allergic asthma is a common asthma phenotype that is a type I allergic disease mediated by IgE [1], with multiple different immune cells, genetic factors, and environmental exposure factors involved in their pathological processes. Airway inflammation caused by allergen sensitization is the main mechanism of its recurrent episodes and progression. Because it is impossible to completely avoid exposure to allergens, allergic asthma is often difficult to cure, and repeated allergies and asthma symptoms have brought great trouble to the patient's life. Meanwhile, it imposes an unacceptable burden on health care systems and on society [2]. Moreover, persistent airway inflammation can damage airway structure, eventually leading to airway remodeling and limited reversible airflow. Therefore, controlling asthma symptoms and improving sensitization are an important link in the treatment of allergic asthma. At present, drugs are mainly used in the clinical treatment of allergic asthma, but there are some problems, such as longtime of drug use, high price, poor curative effect and so on. Although acupuncture has been reported to be effective for asthma-related symptoms [3], its mechanisms are unclear. We explored the use of acupuncture in a patient with allergic asthma.

### Case Presentation

A 40-year-old female, who provided informed consent, was the subject of this case report. She has a past history of chronic rhinosinusitis and is allergic to dust and mites. In December 2019, she developed shortness of breath, chest tightness, and cough. The patient then went to the West China Hospital of Sichuan University for treatment and was diagnosed with allergic asthma. Since 2020, she has inhaled Salmeterol Xinafoate and Fluticasone Propionate Powder for Inhalation intermittently, but her symptoms have been repeatedly unstable and hospitalized once due to deterioration of her condition. Recommended by her friend, the patient came to our hospital (Hospital of Chengdu University of TCM /TCM Hospital of Sichuan Province) to seek acupuncture treatment on September 8<sup>th</sup>, 2020.

### Acupuncture Treatment

The patient was treated by professional acupuncturist at bilateral HT3 (Shaohai), HT6 (Yinxi) and HT7 (Shenmen) acupoints. Acupuncture needles of 0.25 mm × 25 mm for HT3 (Shaohai) and 0.35 mm × 40 mm for HT6 (Yinxi) and HT7 (Shenmen) were used. Acupuncture needles were inserted into acupoints and retained for 30 min. In order to maintain the feeling of qi, twirling, lifting and inserting are carried out every 10 min. This acupuncture treatment is 3 times a week for 4 weeks. During the treatment, the patient's asthma-related symptoms and the frequency of Salmeterol Xinafoate and Fluticasone Propionate Powder for Inhalation use were recorded in the asthma diary.

### Clinical Outcome

After 4 weeks of acupuncture treatment, the total serum IgE and the number of asthma symptoms decreased significantly, while the scores of Asthma Quality of Life Questionnaire (AQLQ)

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Figure 1: a) The total serum IgE at pre-acupuncture. b) The total serum IgE at post-acupuncture. c) The total serum IgE at the 15<sup>th</sup> month follow-up.

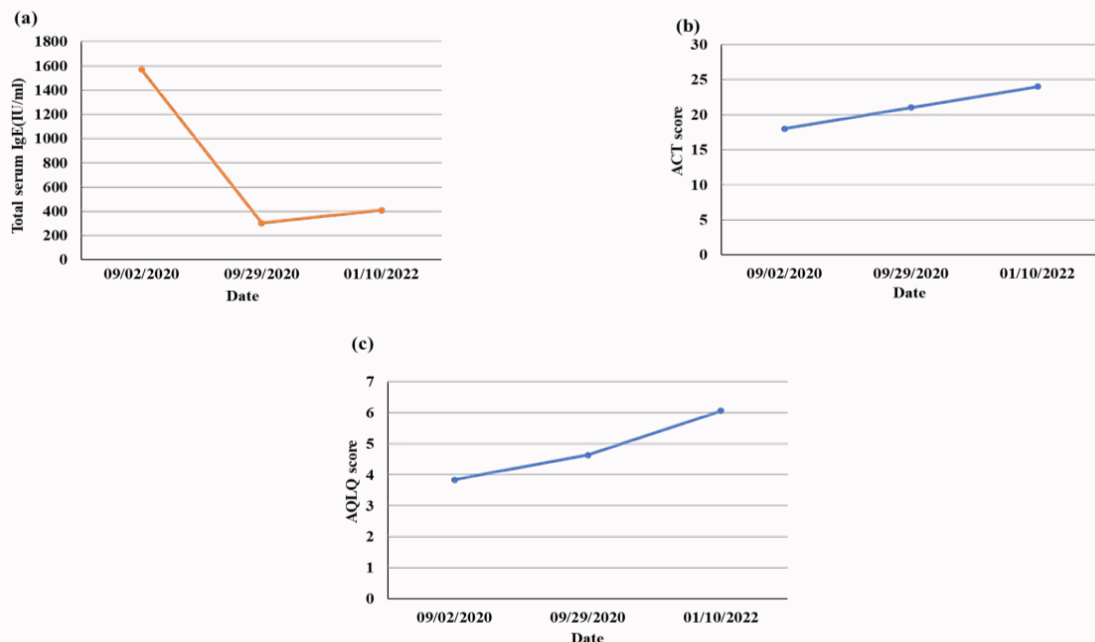


Figure 2: a) The total serum IgE at pre-acupuncture, post-acupuncture, and the 15<sup>th</sup> month follow-up acupuncture. b) Asthma Control Test (ACT) at pre-acupuncture, post-acupuncture, and the 15<sup>th</sup> month follow-up acupuncture. c) Asthma Quality-of-Life Questionnaire (AQLQ) at pre-acupuncture, post-acupuncture, and the 15<sup>th</sup> month follow-up acupuncture.

and Asthma Control Test (ACT) increased. The specific results are described below: 1) As shown in Figure 1a, 1b, the total serum IgE was 1570.00 IU/ml pre-acupuncture and 304.00 IU/ml post-acupuncture.

2) According to asthma diary records, the patient inhaled Salmeterol Xinafoate and Fluticasone Propionate Powder for Inhalation for 0 times during treatment, and asthma symptoms decreased from more

than 3 times a day to 2 to 3 times a week. 3) AQLQ score increased from 3.84 to 4.63, and the ACT score increased from 18 to 21. In addition, we followed up the patient's condition after 15 months. During this period, the patient still maintained the previous drug treatment, the patient's asthma and allergic symptoms were well controlled, and she was hospitalized 0 times due to deterioration of the condition. As shown in Figure 1c and Figure 2, the total serum IgE of the patients was 409 IU/ml, which was still significantly lower than that pre-acupuncture, and the AQLQ and ACT scores were higher than those post-acupuncture.

## Discussion

Allergic asthma has a long course of disease and is easy to relapse. Because allergens cannot be completely avoided, it is easy to lead to the deterioration of the disease. The Global Asthma Initiative (GINA) has proposed that anti-IgE treatment is an important method to control allergic asthma [4], but this method has some problems, such as long maintenance treatment, high price, poor efficacy and so on. As a supplementary and alternative therapy, acupuncture provides a safe, effective and cheap treatment for patients with allergic asthma. In this report, the patients' total serum IgE and asthma-related symptoms were significantly improved after acupuncture treatment, and asthma changed from uncontrolled to well controlled. During the 15-month follow-up, the total serum IgE was close to the level at

the end of treatment, and the clinical symptoms were well controlled, indicating that the acupuncture effect was sustained after treatment, which was helpful to inhibit serum total IgE and clinical remission. These results show that acupuncture can not only reduce the level of total serum IgE in a short time, improve the symptoms of patients with asthma, but also maintain the effect of acupuncture for a long time. It may be worthwhile to try acupuncture in patients with allergic asthma, although controlled clinical studies are needed to confirm these results.

## References

1. Agache I, Antolin-Amerigo D, de Blay F, Boccabella C, Caruso C, Chanez P, et al. EAACI position paper on the clinical use of the bronchial allergen challenge: unmet needs and research priorities. *Allergy*. 2022;77(6):1667-84.
2. Lee LK, Obi E, Paknis B, Kavati A, Chipps B. Asthma control and disease burden in patients with asthma and allergic comorbidities. *J Asthma*. 2018;55(2):208-19.
3. Jiang C, Jiang L, Qin Q. Conventional treatments plus acupuncture for asthma in adults and adolescent: A systematic review and meta-analysis. *Evid Based Complement Alternat Med*. 2019:9580670.
4. Global Initiative for Asthma. *Global Strategy for Asthma Management and Prevention*, 2021.