

The efficacy and safety of single mite and double mite subcutaneous immunotherapy in children with allergic asthma

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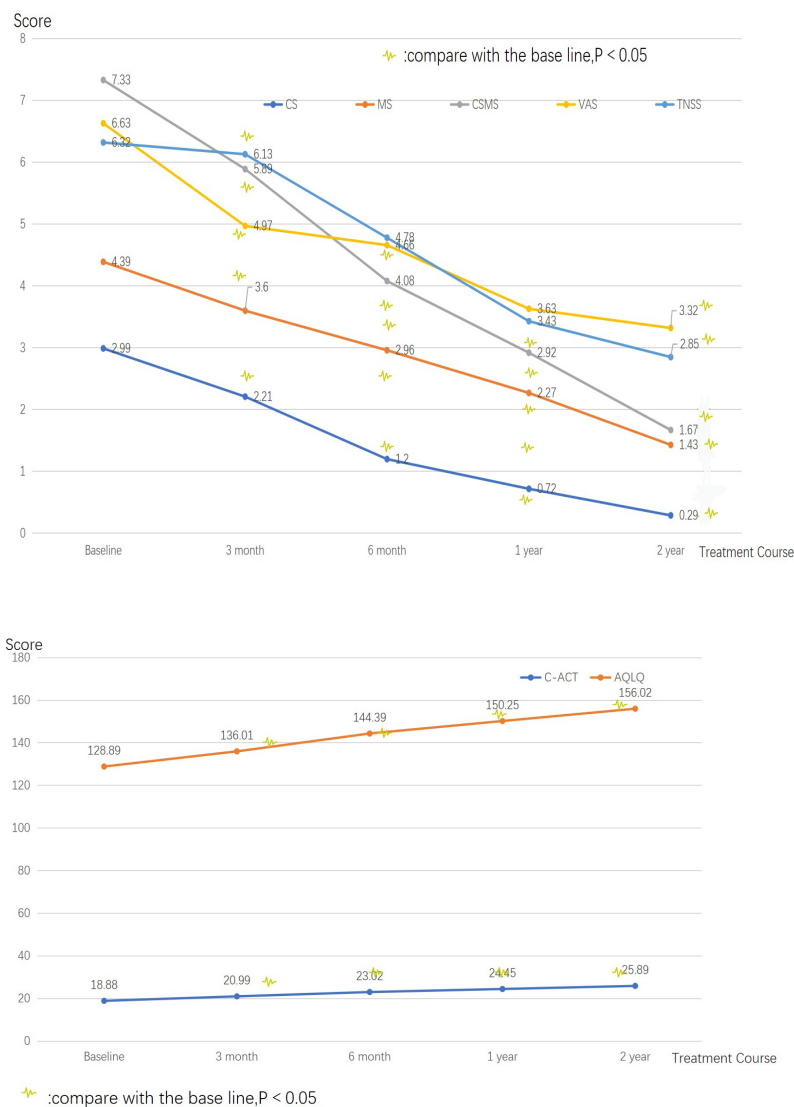
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Abstract

Background: Subcutaneous immunotherapy is an effective and safe treatment for allergic asthma. However, there have been very few studies about comparison of single mite vs double mite subcutaneous immunotherapy. In this study, we aimed to evaluate the difference in clinical efficacy and safety of subcutaneous immunotherapy with dust mite allergen vaccines in children with allergic asthma. **Methods:** This study is a retrospective and single-center study performed from Jan 2019 to Jun 2022. A total of 124 children who were grouped into single mite preparation group and double mite preparation group. The efficacy scores, changes in pulmonary function and the occurrence of adverse effects were compared between the 2 groups before and after treatment. **Results:** The efficacy scores were significantly decreased in all children with SCIT after 6 months treatment, and the quality of life significantly improved compared with those before treatment ($P < 0.01$). After 2 years of treatment, double mite preparation were statistically significant improved in PEF, FEV1, and FVC ($P < 0.05$); single mite preparation were better for CS, VAS improvement ($P < 0.05$); single mite preparation has higher rate of local and systemic adverse reactions ($P < 0.05$). **Conclusion:** Both preparations can achieve significant efficacy and safety in children with allergic asthma. The short-term improvement of asthma symptoms was more significant with the double mite preparation, but the single mite preparation was more effective as the treatment course was extended. Single mite preparation was more effective in improving the symptoms of rhinitis. Double mite preparation had a better safety and was better for lung function improvement.

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