Effectiveness of Traditional Chinese Medicine in the Treatment of Eczema: A Systematic Review and Meta-Analysis Based on Eczema Area and Severity Index Score

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Abstract: Background: Traditional Chinese Medicine (TCM) has been widely used in the treatment of eczema. However, there is currently a lack of comprehensive research on the overall effectiveness of TCM in treating eczema, particularly using the Eczema Area and Severity Index (EASI) score as an evaluation tool. Meta-analysis can integrate the results of multiple studies to provide more convincing evidence. Objective: To conduct a systematic review and meta-analysis based on the EASI score to evaluate the overall effectiveness of TCM in the treatment of eczema. Specifically, the study will review and analyze published clinical studies that investigate TCM treatments for eczema and use the EASI score as an outcome measure, comparing the differences in improving the severity of eczema between TCM and other treatment modalities, such as conventional Western medicine treatments. Methods: Relevant studies, including randomized controlled trials (RCTs) and non-randomized controlled trials, that involve TCM treatment for eczema and use the EASI score as an outcome measure will be searched in medical literature databases such as PubMed, CNKI, etc. Relevant data will be extracted from the selected studies, including study design, sample size, treatment methods, improvement in EASI score, etc. The methodological quality and risk of bias of the included studies will be assessed using appropriate evaluation tools (such as the Cochrane Handbook). The results of the selected studies will be statistically analyzed, including pooling effect sizes (such as standardized mean differences, relative risks, etc.), subgroup analysis (e.g., different TCM syndromes, different treatment modalities), and sensitivity analysis (e.g., excluding low-quality studies). Based on the results of the statistical analysis and quality assessment, the overall effectiveness of TCM in improving the severity of eczema will be interpreted. Expected outcomes: By integrating the results of multiple studies, we expect to provide more convincing evidence regarding the specific effects of TCM in improving the severity of eczema. Additionally, subgroup analysis and sensitivity analysis can further elucidate whether the effectiveness of TCM treatment is influenced by different factors. Besides, we will compare the results of the meta-analysis with the clinical data from our clinic. For both the clinical data and the meta-analysis results, we will perform descriptive statistics such as means, standard deviations, percentages, etc. and compare the differences between the two using statistical tests such as independent samples t-test or non-parametric tests to assess the statistical differences between them.

Keywords: Eczema, traditional Chinese medicine, EASI, systematic review, meta-analysis

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