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SUPPLEMENTRY MATERIALS and METHODS

The Preferred Reporting Items for Systematic Reviews and Meta-analyses statement 2020 was used to perform the meta-analysis. (<http://www.prisma-statement.org/>)

Data source and search strategy

We searched databases including PubMed, EMBASE, and China National Knowledge Infrastructure up to May 31, 2022. The search focused on clinical studies involving humans without language limiting. The keywords “*atopic dermatitis*,” “*AE*,” or “*eczema*,” combined with “*acupuncture*” in free text were used for the literature search. The reference lists of screened articles were also reviewed.

Eligibility criteria and study selection

The inclusion criteria for this study were: (1) RCTs, (2) patients with AE or CE, and (3) intervention group involving single acupuncture therapy and control group involving no treatment, sham, or conventional therapies. Studies involving moxibustion, laser acupuncture, cupping, pricking, blood-letting, or any acupuncture therapy combined with Chinese herbs were excluded. The titles and abstracts of the articles were independently screened by two investigators (JYJ and CYL). Full-text articles reporting relevant data were assessed for eligibility. Any disagreement was resolved through discussion between the investigators, with the contribution of a third investigator (YCH).

Quality assessment

The revised Cochrane Risk of Bias 2 (RoB 2) tool was used independently by two authors (JYJ and CYL) to assess the quality of the included studies. Any disagreement was resolved by a third investigator (YCH).

Outcomes

The present study’s primary outcome was acupuncture effectiveness including severity of disease and quality of life (QOL). The secondary outcome was the safety of acupuncture.

Data extraction

Data was independently extracted by two reviewers (CYL and YCH) including the following parameters: country, inclusion criteria, sample size, type, frequency, acupuncture acupoints, treatment of control groups, and outcome assessment. (Table I) Changes in disease severity and QOL scores were also extracted, along with the proportion of patients with more than 60% global symptom improvement and adverse events. (Tables SI and SII) The corresponding authors were contacted to obtain the raw data if data required for analysis was not reported.

Data analysis

Pooled estimates for improvement in disease severity and patient QOL were calculated for patients who received acupuncture versus patients in control groups. Patients with AE and patients with CE were analyzed separately. Subgroup analyses were performed in patients with CE to compare acupuncture to the different

individual conventional therapies (topical corticosteroid or oral antihistamine). Dichotomous analyses were performed using risk ratio (RR), and continuous data were analyzed using standardized mean difference (SMD) with 95% confidence intervals (CI). The I^2 test was performed for heterogeneity testing. A random effects model was adopted. Publication bias was tested when more than 10 studies were included for analysis. The software Comprehensive Meta-Analysis Version 3 (Biostat, Inc., Englewood, NJ, USA) was used to perform all analyses. The Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) tool was used to evaluate the certainty of evidence.

Search strategy in PubMed

Search number	Query	Search Details	Results
6	(#4) AND (#5)	("acupunctural"[All Fields] OR "acupuncture"[MeSH Terms] OR "acupuncture"[All Fields] OR "acupuncture therapy"[MeSH Terms] OR ("acupuncture"[All Fields] AND "therapy"[All Fields]) OR "acupuncture therapy"[All Fields] OR "acupuncture s"[All Fields] OR "acupunctured"[All Fields] OR "acupunctures"[All Fields] OR "acupuncturing"[All Fields]) AND ("dermatitis, atopic"[MeSH Terms] OR ("dermatitis"[All Fields] AND "atopic"[All Fields]) OR "atopic dermatitis"[All Fields] OR ("atopic"[All Fields] AND "dermatitis"[All Fields]) OR ("dermatitis, atopic"[MeSH Terms] OR ("dermatitis"[All Fields] AND "atopic"[All Fields]) OR "atopic dermatitis"[All Fields] OR ("atopic"[All Fields] AND "eczema"[All Fields]) OR "atopic eczema"[All Fields]) OR ("eczema"[MeSH Terms] OR "eczema"[All Fields] OR "eczemas"[All Fields]))	135
5	((#1) OR (#2)) OR (#3)	"dermatitis, atopic"[MeSH Terms] OR ("dermatitis"[All Fields] AND "atopic"[All Fields]) OR "atopic dermatitis"[All Fields] OR ("atopic"[All Fields] AND "dermatitis"[All Fields]) OR ("dermatitis, atopic"[MeSH Terms] OR ("dermatitis"[All Fields] AND "atopic"[All	49,425

		Fields]) OR "atopic dermatitis"[All Fields] OR ("atopic"[All Fields] AND "eczema"[All Fields]) OR "atopic eczema"[All Fields]) OR ("eczema"[MeSH Terms] OR "eczema"[All Fields] OR "eczemas"[All Fields])	
4	acupuncture	"acupunctural"[All Fields] OR "acupuncture"[MeSH Terms] OR "acupuncture"[All Fields] OR "acupuncture therapy"[MeSH Terms] OR ("acupuncture"[All Fields] AND "therapy"[All Fields]) OR "acupuncture therapy"[All Fields] OR "acupuncture s"[All Fields] OR "acupunctured"[All Fields] OR "acupunctures"[All Fields] OR "acupuncturing"[All Fields]	38,730
3	eczema	"eczema"[MeSH Terms] OR "eczema"[All Fields] OR "eczemas"[All Fields]	24,160
2	atopic eczema	"dermatitis, atopic"[MeSH Terms] OR ("dermatitis"[All Fields] AND "atopic"[All Fields]) OR "atopic dermatitis"[All Fields] OR ("atopic"[All Fields] AND "eczema"[All Fields]) OR "atopic eczema"[All Fields]	34,129
1	atopic dermatitis	"dermatitis, atopic"[MeSH Terms] OR ("dermatitis"[All Fields] AND "atopic"[All Fields]) OR "atopic dermatitis"[All Fields] OR ("atopic"[All Fields] AND "dermatitis"[All Fields])	32,572