

Methods

We conducted a systematic literature review in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement [13] searching the PubMed database, Embase and the Cochrane Library, last updated February 2018. Serial searches were carried out using the following terms:

- (1) (“Atopic dermatitis” and “waist circumference”) OR (“atopic dermatitis” and “waist size”) OR (“atopic dermatitis” and “central obesity”)
- (2) (“Atopic dermatitis” and “blood pressure”) OR (“atopic dermatitis” and “hypertension”) OR (“atopic dermatitis” and “systolic blood pressure”) OR (“atopic dermatitis” and “diastolic blood pressure”)
- (3) (“Atopic dermatitis” and “hyperglycemia”) OR (“atopic dermatitis” and “fasting glucose”) OR (“atopic dermatitis” and “insulin resistance”) OR (“atopic dermatitis” and “glucose”) OR (“atopic dermatitis” and “hyperinsulinemia”) OR (“atopic dermatitis” and “diabetes”)
- (4) (“Atopic dermatitis” and “triglycerides”) OR (“atopic dermatitis” and “cholesterol”) OR (“atopic dermatitis” and “HDL cholesterol”) OR (“atopic dermatitis” and “high-density lipoprotein cholesterol”) OR (“atopic dermatitis” and “hyperlipidemia”) OR (“atopic dermatitis” and “dyslipidemia”)
- (5) “Atopic dermatitis” and “metabolic syndrome”

The searches were repeated with replacement of atopic dermatitis with eczema.

Papers were included in the present review provided that they fulfilled the following inclusion criteria: (1) studies were either prospective, cross-sectional, or retrospective in design, (2) containing data comparing at least one of the characteristics of metabolic syndrome in participants with AD, and (3) papers in English. Exclusion criteria were nonoriginal research papers, i.e. reviews, letters to the editor, conference abstracts, and case reports were excluded (Fig. 1).

The Newcastle-Ottawa Scale (NOS) [14] was used to assess the quality of the included studies. The studies were judged based on 8 items, categorized into 3 groups: (1) selection of the study groups, (2) comparability of the groups, and (3) ascertainment of the outcome. Stars were awarded for each numbered item within the selection and outcome categories, and a maximum of 2 stars for comparability (Table 1).