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Is Atopic Dermatitis associated with systemic metabolic dis-turbances? – the systematic review.

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Disclaimer

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Abstract

Atopic dermatitis (AD) is a chronic, complex, and immunologically mediated skin disease. Its exact cause remains complex, multifaceted and yet to be discovered, but is likely related to a combination of immunological, genetic and environmental factors. Metabolic syndrome (MetS) is a cluster of common metabolic abnormalities including hypertension, insulin resistance, abdominal obesity, reduced high-density lipoprotein (HDL)-cholesterol levels and elevated triglyceride levels. In both atopic dermatitis and metabolic syndrome, chronic inflammation plays a key role in the development and progression of both conditions. High waist circumference is positively correlated with the risk of atopic dermatitis, but there is no a significant correlation between adult-onset atopic dermatitis and hypertension. Some evidence suggests an association between AD and hypertension, however only in patients with severe AD. On the other hand, the relationship between AD and hyperglycemia or AD and cholesterol levels seems inconclusive. The aim of this review is to present the current knowledge on the association between atopic dermatitis and metabolic syndrome, including each of the components of metabolic syndrome.

Attachments



[PRISMA checklist.docx](#)

31KB



[PRISMA 2020 flow diagram.docx](#)

45KB



[References.docx](#)

45KB

Image Attribution

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Materials

A medical literature search of PubMed (1992–present), Google Scholar, Embase conducted in the autumn and winter of 2024, was performed using appropriate terms without date limitations. The main object of the research was to identify the association between atopic dermatitis and components of metabolic syndrome. Medical subject headline terms included “atopic dermatitis and hypertension”, “atopic dermatitis and cardiovascular diseases”, “atopic dermatitis and high blood pressure”, “atopic dermatitis and obesity”, “atopic dermatitis and dyslipidaemia”, “atopic dermatitis and hypercholesterolemia”, “atopic dermatitis and hyperglycemia”, “atopic dermatitis and diabetes mellitus”.



- 1 Identification of records. Databases (n = 3) Pubmed Google Scbolar Embase
- 2 Screening of records
Records screened (n = 1143)
- 3 Reports sought for retrieval (n=496)
- 4 Reports assessed for eligibility
(n = 397)
- 5 Reports of included studies
(n = 87)

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