

## Microbial Colonization in Atopic Dermatitis and its Associated Risk Factors in Children from Aseer Region, Saudi Arabia

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### ABSTRACT

**Background:** Atopic dermatitis (AD) is the most common chronic relapsing multifactorial inflammatory skin disease. Colonization of bacteria, mainly *Staphylococcus aureus* (*S. aureus*) has been increased and raised antibiotic resistance to different antibiotics.

**Objectives:** The objectives of this study are to investigate the microbial colonization in atopic dermatitis patients and its associated risk factors in children from Aseer region, Saudi Arabia.

**Methods and materials:** Skin swabs were collected from AD patients (n = 78) and from healthy controls (n = 44) from Aseer regional hospital. AD patients were examined, bacteria were isolated and identified, and the severity of the disease was determined using a standardized scale: Scoring Atopic Dermatitis (SCORAD).

**Results:** *S. aureus* was the most prevalent, followed by *S. epidermidis*, and *S. lentus* whereas *S. haemolyticus*, *Pantoea* and *S. hominis* were prevalent in healthy controls. The severity of AD was linked to staphylococcal colonization. The occurrence of AD in age group 2 to 12 years were at risk more than others.

**Conclusion:** *Staphylococcus* spp. were positively correlated with AD incidence and its severity. The study concluded that *S. aureus* is the leading pathogenic determinant in the occurrence and outcome of AD in children.

**Keywords:** Atopic dermatitis, SCORAD, Staphylococcal species

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