

# The Positive Skin Prick Test not Correlate with Disease Severity and Quality of Life in Atopic Dermatitis Patients

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## ABSTRACT

**Background:** Atopic dermatitis (AD) is a skin disease which cause stress to the patients. The chronic process of AD can cause physical, social, and psychological impairments. The severity of AD can also be affected by allergen exposures, which in turn will affect the quality of life of the patient. Skin prick test (SPT) can be used to evaluate allergen sensitization. **Purpose:** To evaluate correlation between SPT positivity to severity and quality of life of AD patients. **Methods:** The study was an observational cross-sectional study. Twenty five AD patients were recruited based on inclusion and exclusion criteria. Questionnaire was used to measure the quality of life of patients, and Scoring of Atopic Dermatitis (SCORAD) to measure the disease severity. Most of participants were women (80%), with median of age  $26.84 \pm 13.71$ . **Results:** Positive SPT was obtained in 68% of patients, most of them were caused by house dust mites (55.2%). Seventy six percent of patients experienced mild AD, 12% moderate AD, and also 12% patients experienced severe AD. Significant correlation was observed between the severity and quality of life ( $p=0.001; r=0.617$ ), while the SPT positivity has no correlation with the severity ( $p=0.912; r=-0.023$ ) and quality of life ( $p=0.959; r=0.011$ ). **Conclusion:** This study revealed that the severity of the disease has a correlation with quality of life, but SPT positivity has no significant correlation with severity and quality of life.

**Key words :** atopic dermatitis, skin prick test, quality of life.

## ABSTRAK

**Latar belakang:** Dermatitis atopik (DA) merupakan salah satu penyakit kulit yang dapat memicu stres pada pasien. Proses yang kronis pada DA dapat memengaruhi pasien secara fisik, sosial, dan psikologis. Derajat keparahan DA dapat juga dipengaruhi oleh pajanan terhadap alergen, yang kemudian akan memengaruhi kualitas hidup pasien. Sensitisasi alergen pada pasien dapat diperiksa dengan *skin prick test* (SPT). **Tujuan:** Mengevaluasi korelasi antara jumlah SPT positif dengan derajat keparahan dan kualitas hidup pasien DA. **Metode:** Penelitian observasional analitik *cross-sectional* pada 25 pasien DA yang memenuhi kriteria inklusi dan eksklusi. Penelitian ini menggunakan kuesioner untuk menilai kualitas hidup dan *Scoring of Atopic Dermatitis* (SCORAD) sebagai alat ukur untuk menilai derajat keparahan. Sebagian besar peserta penelitian ini adalah perempuan (80%), dengan median usia  $26,84 \pm 13,71$ . **Hasil:** SPT positif didapatkan pada 68% pasien, yang paling banyak disebabkan oleh tungau debu rumah (55,2%). Sebanyak 76% pasien mengalami DA ringan, 12% DA sedang, dan DA berat juga sebanyak 12%. Jumlah SPT positif dan derajat keparahan tidak memiliki korelasi bermakna dengan nilai  $p=0,912$  dan  $r=-0,023$ . Korelasi yang bermakna ditemukan antara derajat keparahan dan kualitas hidup ( $p=0,001; r=0,617$ ). Jumlah SPT positif tidak memiliki korelasi bermakna dengan kualitas hidup ( $p=0,959; r=0,011$ ). **Simpulan:** Derajat keparahan DA memiliki korelasi yang bermakna dengan kualitas hidup pasien, tetapi SPT positif tidak memiliki korelasi dengan derajat keparahan dan kualitas hidup.

**Kata kunci:** dermatitis atopik, *skin prick test*, kualitas hidup.

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## INTRODUCTION

Atopic dermatitis (AD) is a chronic, relapsing skin disease, characterized by vary manifestations and distributions of lesions.<sup>1</sup> Chronic process of AD can affect physical, social, and psychology life of patients.<sup>2</sup> AD will affect their clothing choice, bath time, continuous use of emollient, sports, study, and sleep. Significant psychology impairment often leads

to severe depression.<sup>3</sup> Physically, patients can also be embarrassed by their skin appearance.<sup>4</sup>

Atopic dermatitis is a multifactorial disease, triggered by interplay of genetic, immunology, and environment factors.<sup>5</sup> Several environment factors which can trigger AD are foods, aeroallergens, and infectious agents, 30-40% moderate-severe AD have significant correlation with food allergy.<sup>5,6</sup> Some studies showed that improvement can be achieved by