

INFLUENCE OF AIR POLLUTION IN THE PREVALENCE AND SEVERITY OF ATOPIC DERMATITIS IN SCHOOLCHILDREN

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Aims. To assess the influence of air pollution in the prevalence of atopic dermatitis and its severity in schoolchildren in the city of Cartagena (Murcia, Spain).

Methods. Crossover study, using the ISAAC questionnaire, among schoolchildren 13-14 years old of the city of Cartagena. We analyzed the presence of: itching dermatitis (rash), atopic dermatitis (itching dermatitis in flexural areas) and severity of dermatitis (being awakened due to pruritus at least once a week) and its relation to the city zone (polluted: PZ, and non-polluted: NPZ) where those children go to school. The statistical test applied was the Pearson's chi-square and odds ratios with 95% confidence intervals.

Results. Schoolchildren: 3018; 1474 in the PZ and 1544 in the NPZ.

Itching rash: 7.6% (n=228), 8.9% (n=132) in the PZ and 6.2% (n=96) in NPZ (OR 1.48; 95%CI 1.12-1.97).

Atopic dermatitis: 6.3% (n=190), 7.9% (n=108) in the PZ and 5.3% (n=82) in the NPZ (OR 1.41; 95%CI 1.04-1.92).

Pruritus awoke: 44.7% (n=85) of children with atopic dermatitis; 44.4% (n=48) in the PZ and 45.1% (n=37) in the NPZ (OR .97; 95%CI .52-1.81). More than once a week: 18.9% (n=36); 18.5% (n=20) in the PZ and 19.5% (n=16) in the NPZ (OR .94; 95%CI .43-2.07).

Conclusions. The prevalence of atopic eczema is 6.3%, being severe in one fifth of the cases. Although there is a significant higher prevalence among those children attending to schools inside the polluted zone of the city, the severity is comparable with those attending to schools in the non-polluted zone.

