Association between attendance of day care centres and increased prevalence of eczema in the German birth cohort study LISAplus.

Abstract:
Day care centre attendance is much more common in East than in West Germany. Although there is evidence that early day care might be protective against atopic diseases, several studies have shown a higher prevalence of childhood eczema in East Germany compared to West Germany. To compare prevalence and cumulative incidence of eczema in a birth cohort study in East and West Germany and to identify risk factors that are associated with eczema, which might explain regional differences. We used data from the ongoing population-based birth cohort study Influence of Life-style factors on the development of the Immune System and Allergies in East and West Germany Plus the influence of traffic emissions and genetics. In 1997, 3097 children from study areas in East and West Germany were recruited. Cumulative incidence and 1-year prevalences of eczema up to the age of 6 years were determined from yearly questionnaires. Cox regression and generalized estimating equations/logistic regression were used to quantify regional differences and to identify risk factors that might explain them. Prevalence and incidence of eczema were higher in children living in East Germany than those living in West Germany. We identified 11 risk factors that showed...
significant regional differences. From these factors, only day care attendance during the first 2 years of life was significantly associated with eczema (odds ratio 1.56, 95% confidence interval CI 1.31-1.86). The regional differences in eczema could be explained by differences in early day care utilization. Day care centre attendance is associated with an increased prevalence and incidence of eczema. Regional differences in eczema prevalence could be explained by regional differences in utilization of early day care.