

ARTICLE

Epidemiology of atopic dermatitis

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Epidemiological studies on atopic dermatitis, primarily performed in children, have shown that the one-year prevalence rate of symptoms is population and area dependent. The few studies that have been done in South Africa among children of different age groups showed one-year prevalence rates of 1 - 13.3%. In adults, the burden of disease is significant. The prevalence rates and age-related percentages of those affected vary between the countries where studies were undertaken. While about 60% of cases show spontaneous clearing by puberty, the condition may recur in adults.

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How common is atopic dermatitis and who gets it?

Much of the work on the epidemiology of atopic dermatitis (AD) has been done in children,^[1-3] employing a variety of prevalence measures, including lifetime prevalence, point prevalence and one-year prevalence rates. The International Study of Asthma and Allergies in Childhood (ISAAC) Phases One and Three^[4,5] has documented that the one-year prevalence rate for AD symptoms varies worldwide, dependent on the population and geographical area studied (globally, nationally or locally). A comparison of the two studies shows a general decline or plateau one-year prevalence rate in the developed world, but an increasing prevalence in the developing world.^[6]

Few studies address the prevalence of AD in South African (SA) populations. The Phase One ISAAC study^[4] of 13 - 14-year-old schoolchildren in Cape Town showed an 8.3% one-year prevalence rate of AD symptoms, with 2.3% having severe disease (sleep disturbance for >1 night per week). The Phase Three follow-up study^[5] documented an increased one-year prevalence of 13.3% among children of the same age. No children 6 - 7 years of age were included for SA in either study. In normal 3 - 11-year-olds, the one-year prevalence rate was 1 - 2.5% in amaXhosa children, depending on the methodology used to define AD and whether they came from urban or rural environments.^[7]

While it is accepted that AD is a particular problem in children, the burden of disease is significant in adults. A study in adults in Scotland showed a 0.2% one-year period prevalence for AD in persons >40 years of age. Adults accounted for 38% of the AD population.^[8] Studies from Nigeria and Ethiopia show that 40 - 60% of patients with AD were >19 years of age.^[9,10]

Few incidence studies on the condition have been done; these were in cohorts of children in Europe.^[3]

Natural history and severity

Studies on the natural history of AD record up to 60% spontaneous clearing by puberty.^[3,8,11] However, AD may recur in adults and the risk is associated with a family history, early onset, severity and persistence of childhood AD and presence of mucosal atopy.^[8] In adults the clinical picture may be altered: patients presenting with hand dermatitis were possibly exposed to additional insults such as irritants (wet work, detergents, chemicals and solvents) or head and neck involvement.^[12]

The concept of the 'atopic march', where children with AD develop mucosal forms of atopic disease,^[13] has been challenged by

some cohort studies.^[14] An early wheeze and a specific sensitisation pattern (wheat, cat, mite, soy and birch) were predictors of wheezing at school age in a German-birth cohort study, irrespective of the presence of AD. The development of rhinoconjunctivitis is more strongly associated with AD than asthma.^[15] It is probable that there are many subsets of the AD phenotype.

Studies in Europe assessing the severity of AD in children revealed that 84% had mild, 14% moderate and 2% severe disease.^[16] In adult cohorts, those who had severe disease accounted for 12%, using the scoring AD (SCORAD) system.^[12] In a Japanese population survey, 70 - 90% of cases were mild, dependent on age group. Moderate to severe AD occurred predominantly in early adolescence and adulthood.^[17]

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