CONTINUING MEDICAL EDUCATION

ARTICLE
Epidemiology of atopic dermatitis

G Todd, MB ChB, FCDerm (SA), PhD

Department of Medicine, Faculty of Health Sciences, University of Cape Town, South Africa

Corresponding author: G Todd (gail.todd@uct.ac.za)

Epidemiological studies on atopic dermatitis, primarily performed in children, have shown that the one-year prevalence rate of symptoms is population and age 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.


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, 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[1-3] 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 on plateau one-year prevalence rate in the developed world, but an increasing prevalence in the developing world.[4]

Few studies address the prevalence of AD in South African (SA) populations. The Phase One ISAAC study[4,5] 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[6] 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.[6,8] 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.[11]

Natural history and severity

Studies on the natural history of AD record up to 60% spontaneous clearing by puberty.[7,8,12] 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.[13] 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 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.[17,18] 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.[19]

References