

Abstract

Susceptibility to Varicella in an immunocompromised population at the Cancer Institute, Maharagama, Sri Lanka was determined. The objectives of this study were (i) to estimate the proportion of immunocompromised patients susceptible to varicella; (ii) to assess the validity of past history and other factors (sex, type of malignancy) in identifying the susceptibility to varicella, that would determine the pre & post exposure management and (iii) to assess the need to vaccinate leukaemics in remission. Varicella zoster virus specific IgG (VZV-IgG) was detected by enzyme-linked immunosorbant assay (ELISA) in 246 blood samples collected from immunocompromised patients. Forty-five percent of the sample population did not have VZV-IgG and were thus susceptible to varicella. A past history of chickenpox was given by 50.4%. Overall sensitivity of a positive history was 69% while the specificity of a negative history was 73%. The sensitivity and specificity of a history of chickenpox was analysed for three age categories i.e. patients below 30 years, between 30 to 49 years and those above 50 years. These age categories were based on age specific rates of VZV IgG reported in the community-based study done in 1998-99 (Liyanage et al, 2000). It is observed that VZV-IgG rate increases markedly between the age categories 20 to 29.9 and 30 to 39.9. Rates gradually increase up to the age of 49 years and 50 years and above a decline is observed. In patients less than 30 years a negative history of chickenpox was a reliable indicator of susceptibility to chickenpox. However 33% giving a positive history were also susceptible. Therefore a positive history was not a reliable indicator of immunity to chickenpox. A negative or a positive history of chickenpox given by those between 30 to 49 years is reliable,

in determining the immune status to chickenpox. In those above 50 years a positive or a negative history was unreliable in determining the immune status. The type of the malignancy and sex category were not identified as factors influencing susceptibility to varicella. Only 18% of patients with ALL had VZV IgG antibodies. Findings of the current study on the reliability of a history of chickenpox in three different age categories will be of value clinically, in deciding pre and post exposure management of chickenpox in immunocompromised patients. Patients with ALL could be considered for live attenuated varicella vaccine in remission, particularly if they do not give past history of varicella.