Hearing Loss and Herpes Simplex

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Summary
A survey to identify the aetiology of hearing impairment among Saudi children was carried out. Children were divided into two groups according to presence or absence of laboratory evidence of herpes simplex virus infection 'at risk' and 'not at risk'. Serological tests for herpes simplex virus infection were performed on 1054 children.

We found positive IgM antibody against herpes simplex virus, type 1 (HSV1) in the blood of 82 of the 1054 children (8 per cent), and positive IgM antibody against herpes simplex virus type 2 (HSV2) in eight of the 1054 children (0.8 per cent) ages ranged between 12 months and 14 years. Forty-six of the eighty-two infected children (56 per cent) with HSV1 were found to have bilateral sensorineural hearing loss (16 of 26 children of the at risk group and 30 of 56 from the 'not at risk' group). Only one case of the eight infected children with HSV2 was found to have bilateral sensorineural hearing loss of moderate degree. This case was in the 'not at risk' group. Hearing impairment was bilateral in all 46 cases, profound in seven, moderate to severe in 23 and mild in 16. Known causes of hearing impairment were excluded together with hearing impairment due to multiple TORCH agents. The high prevalence of hearing impairment among children due to herpes simplex virus infection is described.

References