

Genetic and Antigenic Analysis of Human Rotavirus Prevalent in Al-Taif, Saudi Arabia

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The subgroup, serotype and electropherotype diversity of human rotavirus strains was investigated in Al-Taif, Saudi Arabia. Out of 349 faecal samples collected from diarrhoeic children, 150 (43 per cent) tested rotavirus positive by a group-A specific enzyme-linked immunosorbent assay (ELISA). The majority (87 per cent) of the infected children were below 2 years of age. Subgrouping and serotyping of rotaviruses with specific monoclonal antibodies showed that of the 150 rotavirus positive specimens, 17 per cent belonged to subgroup I, 59 per cent belonged to subgroup II, and 24 per cent were neither subgroup I nor subgroup II. The specimens were typed, as serotype 1 (43 per cent), serotype 2 (5 per cent), serotype 3 (11 per cent), serotype 4 (10 per cent) or mixed serotypes (3 per cent). The remaining 41 (27 per cent) specimens were untypeable. None of the serotypes showed association with a particular age group. An electrophoretic analysis of viral RNA revealed 11 distinct patterns (six long and five short). The majority, 78 per cent were long patterns and 22 per cent were short patterns. Analysis of the specimens for which subgroups, serotypes and electropherotypes were available indicated that a given RNA pattern does not correspond to a particular subgroup or serotype

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