

Author information

Abstract
We report on three cases of symptomatic transmission of the L-Zagreb mumps vaccine virus from three vaccinated children to five adult contacts. The five contact cases were parents of the vaccinated children and presented with parotitis and in one case also with aseptic meningitis. The etiology of the contacts’ illness was determined by viral culture, genomic sequencing, serology and epidemiological linking. Two of the vaccinated children developed vaccine associated parotitis as an adverse event three weeks following immunization. Symptoms in contact cases developed five to seven weeks after the vaccination of the children. The five contact cases, as well as the three children with adverse events recovered completely. The children had been vaccinated with MMR vaccine produced by the Institute of Immunology Zagreb, each of them with a different lot. One of the possible explanations for these adverse events is that the very low levels of wild mumps virus circulation in the last decade, combined with waning immunity in those who received one dose of vaccine or suffered from mumps in childhood, resulted in susceptible young adults and that this unique epidemiological situation allows us to detect horizontal transmission of mumps vaccine virus.

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