CMV infection in children and adolescents up to 18 years in Istria County, Croatia

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Abstract

Aim: The aim of this study was to determine the seroprevalence of cytomegalovirus (CMV) infection among children and adolescents in Istria County.

Patients & Methods: During a one year period (January-December 2015), a total of 499 serum samples from patients up to 18 years were tested for the presence of CMV IgM and IgG antibodies using an automated enzyme-linked fluorescent assay (Vidas; bioMérieux, Marcy l´Etoile, France).

Results: There were 217 (43.5%) female and 282 (56.5%) male participants. The overall prevalence was 4.2% for IgM and 47.1% for IgG. There were no statistically significant differences between age groups (p=0.47 for IgM; p=0.26 for IgG). According to age group, the prevalence rates of CMV IgM varied from 1.8% to 5.4% . Most of the IgM-positive subjects grouped under 10 years of age (15/21; 71,4%). The IgG seropositivity was similar in all age groups (from 43.5% to 54.5%). The seroprevalence rates did not differ significantly according to diagnosis .The CMV IgM rates varied from 0.9% to 8.1%; the IgG prevalence differed from 41.8% to 53.1% (p=0.08 for IgM, p=0.70 for IgG). The results of logistic regression showed no differences in seropositivity among gender and age groups. Accordin to gender, the IgM OR was 0.46 (95% CI=0.19-1.13) and IgG OR was 0.83 (95% CI=0.58-1.18). Regarding age groups the IgM OR was 0.96 (95% CI=0.89-1.04) and IgG OR was 0.99 (95% CI=0.97-1.03).

Conclusion: Our results indicate that CMV infection is widespread amog children and adolescents in Istria from early age. Majority of children are infected at early age.

Biography

Jasmina Kucinar was graduated from the School of Medicine, University of Zagreb in 1991 and became a specialist in Medical Microbiology and Parasitology in 2000. His work at the Mycrobiology Service of Istria County Institute of Public Health as Head of the Serology and Immunology Laboratory. She has published as author or co-author many papers and posters in peer-reviewed congress proceedings with international participation.

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