

# **Study on Seroprevalence of Cytomegalovirus in Adult Population of Alborz province Of Iran**

Bitakarbasi\*, Ashraf Mohammadi,

**Background:** Cytomegalovirus (CMV) is a kind of herpesviruses. It is one of the most common causes of congenital and prenatal infections. CMV infection of pregnant women, especially in the first trimester may lead to congenital abnormalities in the newborns. The prevalence of CMV infection in developed countries is about 40% and in developing countries may be 100%. Because there is no information related to the seroepidemiology of this infection in different city of Alborz province, this study was done. This seroprevalence study belongs to serum collected adult people who referred to the health care centers of Alborz province-IRAN in 2011-2014 for different purpose.

**Materials and methods:** This cross-sectional study was done in 2001 serum sample collected different health care center and Medical laboratory diagnostic in 5 city of Alborz province during 3 last years. Demographic data were collected by a questionnaire. About 3 ml of blood/serum was taken from each patient. Serum samples were aliquoted and frozen at -20°C until analyzed. The presence of anti-CMV specific antibodies was assessed by enzyme immunoassays and PCR. Data were analyzed by Fisher's exact test and chi-square test using SPSS software version 11.5.

**Findings:** Mean age of cases was 22-30 years and varied between, years. CMV IgG was found in 1813 cases (91%) out of 2001 cases. 188 people (9%) of the cases were negative regarding to CMV-IgG. There was a significant relationship between the age, sex, education, level of antibody change titre to sex, and the positive result of the test (CMV-IgG).

**Conclusion:** As in other developing countries, the prevalence rate of CMV infection in adult people in Alborz province is high. Since the infection is prevalent and the potential abnormalities associated with it, it is highly recommended to expand preventive measures and inform population at risk "patient in case of transplant, immunocompromised, under school children" how to prevent the infection and its associated consequences.

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**Keywords : Cytomegalovirus, Seroepidemiology Enzyme immunoassays, Alborz**

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