

Sero prevalence of parvovirus B19 infection among pregnant woman in Ardabil in 2013-2014

Abstract

BACK GROUND & OBJECTIVE: Parvovirus B19 is a small, non-enveloped, single-stranded DNA virus that belongs to the family Parvoviridae. This virus is the primary aetiologic agent of erythema infectiosum (5th disease) and aplastic crisis in patients with chronic haemolytic anaemia. A common mode of transmission is through personal contact via aerosol or respiratory secretions. Transplacental transmission of parvovirus B19 during pregnancy is one of the leading causes of non-immune foetal hydrops, spontaneous abortion or intrauterine foetal death. Regarding its importance in prenatal care we decided to study Sero prevalence of parvovirus B19 infection among pregnant woman in Ardabil, Iran.

METHODS: In a community based study, with a cluster sampling, were selected 350 pregnant women attending a health care centers in Ardabil. Serum samples collected and Anti-B19 specific IgG was detected by using commercial enzyme-linked immunosorbent assays (Euroimmune, GERMANY). Furthermore during samples collection a questionnaire filled for each pregnant woman under study.

RESULT: 242/350 (64.6%) of pregnant woman were living in urban and 124/350 (35.4%) were from rural areas. Anti-B19-specific IgG antibody was detected in 242/350 (69.1%) of pregnant women. Pregnant women age ranging from 15 to 34 years with average of 23 years. According to our study Seroprevalence of IgG antibodies was observed to increase with the increase in age ($R=0.268$) but there was no significant relation between B19 seropositivity and living area, number of family, number of commensals, number of living child and the amount of hemoglobin. ($p>0.05$)

CONCLUSION : Approximately one-third of individuals in the study were at risk for primary B19 infection. Therefore, health education for pregnant women and screening for the mentioned microorganism to prevent fetal complication is needed.

Key words : Seropositive, Parvovirus B19, Pregnant women