Symptomatic and Asymtomatic Distribution of Congenital CMV in Children in Gorgan, Iran

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Background & Objectives: Cytomegalovirus (CMV) infection is the most common congenital infection worldwide. CMV infection is a particular importance related to congenital abnormality in fetus and newborn. The aim of the present study was to assess the clinical value of congenital CMV (cCMV) among newborns in Gorgan, Iran.

Methods: A total of molecular diagnosed congenital CMV were entered in this study and assayed clinically by pediatrics specialist in Dezyani and Taleghani hospitals of Gorgan. The questionaries had been completed based on clinical findings and demographic data. Clinical findings at birth in children with CMV infection were considered. Data were analysed using SPSS (version 16) software.

Results: Of all positive congenital CMV, 15% and 85% of infants were showed symptomatic and asymptomatic cCMV respectively. 76.93% of them were males and 23.07% were females. Mean height, weight and head circumference of infants were 42.15±14.01 (cm), 2.64±1.04 (g) and 31.66±3.2(cm) respectively and significant difference was seen only in CMV DNA-positive newborns and height of infants (p=0.02). Signs and symptoms of congenital CMV infection at birth were microcephaly, thrombocytopenia, hydrocephaly, hepatosplenomegaly and congenital eye defects.

Conclusion: This is the first report of distribution of symptomatic cCMV based on molecular screening detection of cCMV from urine in Iran showing similar feature of this problem with world average. According to the high level of asympatic signs among CMV DNA- positive infants, it would be considered to plan for interventions such as cCMV screening, antiviral therapy and vaccination to manage this health problem.

Keywords: Congenital Cytomegalovirus; Newborns; Symptomatic; Gorgan