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Prevalence of cytomegalovirus (CMV) infection among neonatal intensive care unit (NICU) and healthcare workers

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CMV is the most common cause of congenital and perinatal infection, most infections are asymptomatic at birth but later on develop handicaps, mainly neurological disturbances. The aim of the present work is to study the prevalence of CMV infection in NICU, to detect possible nosocomial transmission of CMV infection and determine possible risk factors for neonatal CMV infection. This study was carried on 175 neonates in NICU and 19 employees in the same unit. All members of the study were investigated for serum CMV-IgG and IgM by ELISA and CMV - DNA by PCR. The overall prevalence of CMV was 12.57%, 10 (5.71%) had congenital infection, while 12 cases (6.86%) had perinatal infection. In neonates with congenital CMV infection, the prevalence of breast milk feeding, congenital anomalies and blood transfusion were 80%, 30% and 60%, respectively. In neonates with perinatal CMV infection the prevalence of breast milk feeding, congenital anomalies and blood transfusion were 75%, 16.67% and 50%, respectively. On the other hand from the 19 employees, 2 (10.53%) were CMV-DNA positive by PCR, none of them was CMV-IgM positive and all of them were CMV-IgG positive. The risk factors related to CMV infection among neonates in NICU were, low birth weight, congenital anomalies and breast milk feeding, while CMV infection among employee was related to blood transfusion and employment period. In our results there was no statistical correlation between neonates in NICU and employee in the same unit. CMV infections are of more prevalence in premature and low birth weight neonates in NICU. No evidence of nosocomial CMV transmission to employee in NICU.