Rev. Inst. Med. Trop. Sao Paulo
55(3):148, May-June, 2013
doi: 10.1590/S0036-46652013000300018

SUMMARY OF THESIS

XAVIER, Paula Cristhina Niz - **Infecção por citomegalovirus em pacientes internados em unidades neonatais de Campo Grande, MS, Brasil.** Campo Grande, 2012. (Tese de Doutorado - Universidade Federal de Mato Grosso do Sul).

CYTOMEGALOVIRUS INFECTION IN NEONATAL PATIENTS IN UNITS OF CAMPO GRANDE, MS, BRAZIL

In humans, the cytomegalovirus (CMV) is the most significant factor of intrauterine infections that cause congenital anomalies. The rate of hematogenous transmission is on an average 0.5% to 2.5%. The precocious transmission of infection from mother to the fetus decreases the prognosis and increases the chances of severe abnormalities. About 10% of infected newborns presented symptomatic infection and the risk of mortality reached at 30%. The most important sequel is neurological. In the present study, the frequency of congenital CMV infection in newborns admitted to neonatal units was addressed using molecular biology method. The aim of this study was to compare the sensibility of polymerase chain reaction (PCR) with serology method and confront the results of the exams using the blood samples with urine samples in the diagnosis of CMV intrauterine infections. In the present study, we collected urine and blood samples of 520 newborn patients, from five hospitals in Campo Grande from March 2010 to August 2012, and these samples were PCR analyzed. The serology results were obtained from medical records. From a total of 520 newborns analyzed, 13 (2.5%) were positive for CMV in urine and 10 (2%) were positive for CMV in the blood. Regarding symptoms, three (23%) were asymptomatic, 10 (77%) symptomatic and 13 (100%) identified as congenital infection. The main clinical features of symptomatic patients were as follows: 10 (100%) were preterm, two (20%) had petechiae, five (50%), respiratory failure, one (10%) microcephaly, one (10%) hydrocephalus and seven (70%) had jaundice. As far as serology positive patients are concerned, only one (0.2%) showed IgG+ and IgM+ serum reagent. As for evolution, from the entire positive group, only one (7.7%) died. The PCR was sensitive, specific, fast and convenient by means of offering the possibility of freezing and storage of samples, as well as the handling of small quantities of specimens to be processed and the possibility of repeating the process if necessary. The presence of genomic DNA in urine showed a higher number of positive findings to CMV than in blood and was more sensitive than serology ($p = 0.0001$).

Paula Cristhina Niz XAVIER
paula.xavier@ufms.br