Congenital human cytomegalovirus

The importance of the screening.

The congenital infection with Citomegalovirus (CMVH) is the most frequent in humans (0,2 - 2,4% of all live births). Is asymptomatic in the 80-90% of new born (RN), with delayed appearance of sequels. The objective of this work is to determine the ways of the transmission in paediatric patients infected and to demonstrate the importance of the screening the CMVH samples in the RN.
A total of 145 samples of symptomatic patients of 5 days to 8 months of age, positive for CMVH were studied by, viral isolation, PCR in urine and dry blood spots in the Guthrie Card (GC). The viral DNA was purified and amplified with specific primers of region UL55. The samples of 45 patients were studied by the three methods; in the 100 remaining samples (patient, with more than 15 days of life), 74 were analyzed by two methods (isolation and PCR in urine) and, 26 retrospectively by PCR in GC.

Results and discussion

In 145 positive cases, the congenital infection (IC) was detected in 59/145 (40,69%) samples, 45 (76,27%) were studied opportunely within the first 15 days of life and 14 (23,73%) confirmed retrospectively by PCR in GC.
Of the 86/145 (59,31%) remaining samples whose ages surpassed the 15 days; 12 (9,65%) studied retrospectively by PCR in GC, were perinatal infections (IP), and in 74 (51,3%) the transmission way could not be determined.

Conclusions

The technique of PCR in GC (retrospective analysis) allowed identify the transplacental way in, 14 patients (IC) and the horizontal in 12 (IP). The realization in GC of the screening for CMVH in the first 15 days of life, allows to arrive at a diagnostic and correct prognostic. This avoids the situation of indetermination (IC or IP) of 74 patients, who represented the 51,3% of the population in study.