

PRELIMINARY EVALUATION OF CHORUS SYSTEM IN COMPARISON WITH MINI-VIDAS SYSTEM FOR DETECTION OF CYTOMEGALOVIRUS-IgM ANTIBODIES

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ABSTRACT

Cytomegalovirus is a herpes virus transmitted by close human contact. No symptoms of infection are apparent in majority of cases. However, the virus is very dangerous and is spread via fluids of the body especially to the new born baby from an infected mother. Medical diagnostic is working to determine the most sensitive techniques for the detection of Cytomegalovirus antibodies, in the framework of which is developed this scientific work. An enzyme-linked immunosorbent assay (ELISA, applied in CHORUS instrument) and an enzyme-linked fluorescent assay (ELFA, applied in Mini-Vidas instrument) have been compared with each other for the detection of Cytomegalovirus IgM antibodies. There have been analyzed 198 samples with each technique. 190 out of 198 samples (96%), gave compatible results. In particular, 153 samples gave negative results, 35 samples gave positive results and 2 samples gave doubtful results with both techniques. It was observed that 3 samples were positive in Vidas instrument and negative in Chorus instrument and 5 samples were positive in Vidas instrument and doubtful in Chorus instrument. Comparative evaluation of the two assays demonstrated a comparable sensitivity for all systems. ELFA technique showed a better ability to detect Cytomegalovirus IgM antibodies during the early stage of acute infection. Analysis of the results revealed a good level of concordance between the two assays and confirmed the usefulness of ELFA technique to diagnose acute cytomegalovirus infection.

KEYWORDS: ELISA, ELFA, Cytomegalovirus IgM