

# **Estudio comparativo de inmunofluorescencia directa, enzimoimmunoanálisis y cultivo para el diagnóstico de las infecciones por metapneumovirus humano.**

**INTRODUCTION:** Human metapneumovirus (hMPV) is an important cause of lower respiratory tract infections in children, accounting for 14% to 24% of all viral respiratory infections with an etiological diagnosis. This study compares a direct fluorescent antibody (DFA) test, enzyme immunoassay (EIA), and shell-vial culture for diagnosing acute bronchiolitis in infants.

**METHODS:** A total of 124 nasopharyngeal aspirates from 108 infants with lower respiratory tract infection were analyzed. Incoming samples were processed for DFA using a commercial anti-hMPV antibody (Diagnostic Hybrids Inc. ((R))); 76 were inoculated in an LLC-MK2 cell line and after an incubation period of 48h, were stained and fixed with the aforementioned serum. The remaining sample was processed according to the routine diagnostic procedure and aliquots were frozen for EIA analysis (Biotrin ((R))).

**RESULTS:** Twenty (16.12%) samples were positive for hMPV by DFA, 27 (21.77%) by EIA, and 15 (19.73%) by culture. DFA and EIA results were consistent in 92.73% of the 124 samples. Considering the 3 techniques, the same results were obtained in 90.78% of the 76 specimens. Considering only the first specimen from each patient (acute phase), the sensitivity, predictive values, and Kappa index for DFA improved and were very close to the EIA values.

**CONCLUSION:** DFA and EIA are useful for antigen detection in the diagnosis of acute hMPV infection, particularly in pediatric hospitals that do not have amplification techniques for this virus, and when a rapid diagnosis is required. It should be kept in mind that DFA analysis is a suitable test for this purpose only in the acute phase of the infection.