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Contribution of 3 virological tools in the diagnosis of CMV immunocompromised patients diseases

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Aim of this study is to evaluate the accountability of *Cytomegalovirus* (CMV) in different situations of immunodeficiency and to compare the value of 3 tests (Serology, avidity and DNA quantification) in the diagnosis of CMV infection in immunocompromised patients. This is a retrospective study involving 30 immunocompromised patients in whom CMV infection was suspected. CMV Serology and avidity index were performed in the laboratory of Virology of Monastir Hospital, Tunisia, by a micro-particle technique (Abbott), the genome's extraction by QIAamp DSP virus kit (Qiagen) and the DNA quantification by the Artus CMV RG PCR kit. Our study included 21 kidney grafted, 7 patients with AIDS and 2 with autoimmune diseases under immunosuppressive treatment. The diagnosis of CMV infection was motivated by pneumonia associated or not to colitis and hepatitis in 19 cases, isolated colitis in 5 cases, retinitis and febrile syndrome in 2 patients. Stenosis and transplant organ rejection were noted in 4 cases. Serology was positive (both IgM and IgG) in 36% of cases. Avidity index was low in 10% of cases. CMV viral load was positive in 33%. It was over than 10.000 copies/mL in 20% of patients. Our study shows that the CMV is the cause of damage for 20% at least of our population. It confirms the lack of serology contribution in the diagnosis of CMV infection in immunocompromised patients. Avidity is an interesting test to arbitrate between a primary infection and reactivation. Finally, CMV load Quantification is the tool of choice for the diagnosis of systemic disease.

Biography

Aida Elargoubi specialized in virology from the University of Pharmacy of Tunisia and recruited as an Academic Assistant since 2011 at the University of Pharmacy and the laboratory of Virology of Fattouma Bourguiba Hospital of Monastir Tunisia. She is the Quality Manager of the department of microbiology (December 2012).

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