

**TITLE:** DENGUE AND CHIKUNGUNYA VIRUS: CLINICAL AND DIAGNOSTIC ASPECTS.

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### **ABSTRACT**

Dengue and Chikungunya virus are two important mosquito-borne viral diseases that affect the humanity, being a serious public health problem worldwide, especially in tropical countries, where environmental conditions favor the development and proliferation of *Aedes aegypti*. They are RNA virus that belongs to the arbovirus and alphavirus respectively. The name "chikungunya" derives from a word in the Kimakonde language, meaning "to become contorted", and describes the stooped appearance of sufferers with joint pain (arthralgia). Dengue and Chikungunya are characterized by an abrupt onset of fever frequently accompanied by joint pain. Other common signs and symptoms include muscle pain, headache, nausea, fatigue and rash. The joint pain is often very debilitating, but usually lasts for a few days or may be prolonged to weeks. In this work, we conducted a study of the clinical aspects of dengue and chikungunya disease for a better understanding of epidemic diseases to guide future clinical for a better diagnosis. The comparative analysis with some clinical symptoms described in 130 patients was performed in the Institute of Clinical Pathology and Research Campinas / SP. Nonspecific laboratory tests (blood count and biochemistry of liver enzymes AST and ALT) and specific tests (serology IgM / IgG and immunochromatographic tests NS1 for dengue virus) were evaluated, this last one, to confirm or exclude the dengue disease. The total of 45% patients had antibodies against the dengue virus and 23% patients tested positive for immunochromatographic tests NS1. Specific tests for IgM / IgG serology were performed in patients after the fifth day of symptoms and the immunochromatographic tests NS1 were performed between the first and fifth day after the clinical symptoms. Specific tests accounted for 68% of the cases evaluated. The biochemical changes were detected in 46% of patients and hematological conditions such as leukocytosis, leukopenia, lymphocytosis and thrombocytopenia with atypical state were found in 65% of the patients examined. Our results showed that patients without serologic and immunochromatographic confirmation to dengue virus but who had biochemistry and hematological tests changed, added with symptoms of more severe arthralgia in detriment to myalgia symptoms (seen in dengue patients), may be an effective clinical evidence to the diagnosis of chikungunya.

**Keywords:** Dengue, Chikugunya, diagnosis, clinical, pathology.

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