

P0523 **Determination of risk factors to hospitalization in chikungunya virus infection with clinical complications in northeast Brazil, 2017 outbreak**

Melissa Medeiros*^{1,3}, Raquel Serrano¹, Rafael Cavalcante²

¹Faculdade UniChristus, Brazil, ²Universidade Federal do Ceará, Brazil, ³Hospital São Camilo Cura d'Ars, Brazil

Background: Official epidemiological studies of the Public Health Department of Ceará (Brazil) demonstrate an epidemic situation related to Chikungunya (CHIKV) infection in this region. In 2017, it has been confirmed 96,299 cases of CHIKV and there were 136 deaths. This situation aimed the present study to analyse the severe clinical manifestations of patients admitted to a private hospital at Ceara.

Materials/methods: Retrospective analysis from medical records of patients hospitalized at São Camilo Hospital in Fortaleza. It was included only patients hospitalized due to clinical complications following confirmed Chikungunya infection during the first half of 2017. It was considered confirmed cases the patients who had positive serological tests: reactive IgM or positive PCR (Polymerase Chain Reaction) for Chikungunya.

Results: Total of 18 patients including two neonatal cases. Mean admitted days at hospital 15,8 (3 to 43). Among adults 81.25% were female. Mean age 81 (78-94) years old and female 78.3 (35-88). Most patients had comorbidities prior to hospitalization (83.3%), with 75% systemic arterial hypertension, 25% type 2 diabetes mellitus, 31.2% cardiovascular and 12.5% Rheumatologic diseases. Mortality rate of 22.2%, 3 woman age 81,86 and 88 years and 1 male 94 years, main complications 3 neurologic symptoms (encephalitis and seizures) and 4 had pneumonia. From all patients main hospitalization causes were: 5 neurologic symptoms and pneumonia, 3 encephalitis, 1 gestant at birth child period, 1 renal disease, 1 neurovascular disease, 3 isolated pneumonia, 2 arthropathy. 72.2% had acute infection (IgM) and others sub acute or chronic. 27.7% had also positive serology to Dengue virus (IgG) and 11.1% Zika (IgG) without significant statistical difference ($p=0.56$). 88.9% received antibiotics during treatment (5 Piperacilin/tazobactan, 5 Meropenem, 5 Cefepime). In laboratorial findings it was found 27.7% thrombocytopenia (55.000 to 120.000), 55.5% creatinoquinase and 61.1% AST and ALT elevation, hyponatremia 44.4% with no statistical difference related to death ($p=0.27$) and not correlated with renal disease. Two patients developed acute renal disease, but one had previous alterations.

Conclusions: Risk factors associated with women, previous comorbidities, older patients. Secondary pneumonia correlated with death cause. Thrombocytopenia and elevated inflammatory biomarkers detected. High prevalence of Hyponatremia in CHIKV complicated cases.