

TÍTULO: CYTOKINE PRODUCTION BY CELLS OF SCHISTOSOMA MANSONI INFECTED INDIVIDUALS WITH LOW PARASITE LOAD

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Schistosomiasis is a public health problem due to the high global prevalence, the difficult epidemiological control and morbidity. Schistosomiasis has two clinical forms, acute and chronic, which are associated with Th1 and Th2/T regulatory immune response, respectively. Acute Schistosomiasis is associated with high production of IFN- γ , TNF- α and IL-6; and chronic Schistosomiasis characterized by producing Th2 cytokines (IL-4, IL-5 and IL-13), associated with the presence of the regulatory cytokine IL-10. Some authors have identified individuals living in endemic regions with different types of resistance to *S. mansoni* infection. One factor that could explain the resistance would be the immune response. Thus, the objective of this study was to assess levels of cytokines IL-2, IL-4, IL-5, IL-10, TNF and IFN- γ in supernatant of peripheral blood mononuclear cells (PBMC) culture stimulated with SWAP, Sm29 and Sm22.6. This study is being conducted in the population of the municipality of Conde, Bahia. The selection of individuals possible resistant to infection with *S. mansoni* was performed by using information contained in previous databases between the years 2001 and 2010, regarding parasite load and degree of exposure to contaminated water, and new data collected from 2013. Individuals with parasite load between zero and 99epg were classified as resistant to infection (Low Load - LL) and those with parasite load greater 199 epg were classified as susceptible to infection with *S. mansoni* (High Load - HL). Individuals that define the LL group produces, in general, higher levels of IL-2, IL-5 and IFN- γ and lower concentrations of IL-10 when stimulated by Sm29 and Sm22.6, compared to the HL group. Thus, a combination of TH1 and TH2 responses in different individuals that comprise the low load and high load groups is evident, suggesting that a mix between these two responses, associated with absence of IL-10 contributes to maintaining a low parasite load.

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Keywords: *S. mansoni*; Cytokines; Resistance.