ASSESSING THE EXPRESSION AND DISTRIBUTION OF THE WARP PROTEIN IN CULTURED P. gallinaceum OOKINETES

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During the life cycle of malaria parasites, one of the most crucial stages is the midgut invasion in the invertebrate host, when the number of invading parasites steadily decreases and reaches the lowest count throughout its cycle. Paradoxically, the elements and mechanisms involved in such significant bottleneck are yet poorly understood. One of the micronemal proteins produced by the ookinete, and believed to play a part on the invasion is the von Willebrand Factor A Related Protein (WARP). The goal of this study was to characterize the expression and distribution patterns of WARP in cultured *Plasmodium* gallinaceum ookinetes. The vWA domain sequence was produced as a recombinant protein using pET32, purified by affinity chromatography by using Ni resin, and the protein was used to immunize rabbits for the production of polyclonal monoespecific antibodies. Immunofluorescence and confocal microscopies were carried out using the polyclonal antibodies. WARP can be detected from the early stages of ookinete development up to the mature palmate-shaped forms. It presents an intracellular granular distribution, corroborating its micronemal localization. The recombinant protein and also the polyclonal antibodies are currently being used in artificial mosquito feedings in order to analyze their invasion blocking capacity. Key Words: WARP, OOKINETE, INVASION. Financial support: CNPq, TDR/WHO.