Hematologic parameters of balb/c mice infected with *Plasmodium berghei* and treated with essential oil of *Cyperus articulatus.*

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Malaria is a parasitic tropical disease that brings serious problems for public health and with huge economic impacts. Nearly 3.2 billion people live in areas considered under risk of malaria transmission (1). *Cyperus articulatus* L., popularly known as "priprioca" in Brazil mainly in the Amazon region (2), is used as antithermic, anticonvulsant and for the treatment of malaria by traditional medicine (3). The hematological alterations most frequently associated with malaria infectionareanemia, leukopenia, thrombocytopenia, neutropenia and eosinopenia (4). In order to determine hematological parameters, we used female mice of BALB/c weighing roughly 20 g, divided in 4 groups: Malaria (not treated); *C. articulatus* 200 mg/kg/24h/V.O; *C. articulatus* 100 mg/kg/24h/V.O; *C. articulatus* 10 mg/kg/24h/V.O. Each group was inoculated with i.p. approximately 10^6 parasitized erythrocytes of *Plasmodium berghei.* They began the treatments on the fourth day after inoculation *Plasmodium*, and were treated for 7 consecutive days. On the 11th day after the inoculation, the animals were submitted to a cardiac puncture for blood sample collection, which was used in the determination of hematological parameters. The results for red blood cells within the malaria group was 2.862 ± 0.488 x 10^6 μL^{-1}; in the *C. articulatus* the 200 mg group was observed a number red blood cells 3.668 ± 0.082 x 10^6 μL^{-1}; in group *C. articulatus* 100 mg, the number was 7.223 ± 0.422 x 10^6 μL^{-1}. Finally, for *C. articulatus* 10 mg, we estimated 3.566 ± 0.444 x 10^6 μL^{-1}. As for the analyses by hemogram, we found that the hemoglobin levels within the malaria group was 5.96 ± 0.44 g dL^{-1}; in group *C. articulatus* 200 mg, the estimate was 6.78 ± 0.38 g dL^{-1}; in group *C. articulatus* 100 mg, 11.94 ± 0.86 g $dL^{-1}$and for the 10 mg group *C. articulatus*, the estimate was 6.94 ± 0.44 g dL^{-1}. Concluding, the blood count analysis demonstrated that *C. articulatus* 100 mg group showed a significant increase ($p < 0.001$) in the number of red blood cells while compared to malaria group. Additionally, the analysis of hemoglobin levels showed a significant increase ($p < 0.001$) in this parameter *C. articulatus* 100 mg group, while compared to the group malaria.

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