

**PERFIL DE CÉLULAS B DE MEMÓRIA E DE CÉLULAS B REGULADORAS (BREG)  
OBSERVADAS DURANTE E APÓS A INFECÇÃO MALÁRICA HUMANA POR P.  
FALCIPARUM: IMPLICAÇÕES NO DESENVOLVIMENTO DE IMUNIDADE**

**ERIKA CARVALHO GUERRA (PROBIC - 2013/2014); ROBERTA REIS SOARES;  
KEZIA KATIANI GORZA SCOPEL (ORIENTADOR)**

**1Department of Parasitology, Microbiology and Immunology, Institute of  
Biological Sciences; UFJF. \* E-Mail: keziascopel@yahoo.com.br**

**Subtitle: PARASITE DENSITY AND HAEMATOLOGICAL CHANGES IN PATIENTS  
DURING AND AFTER VIVAX MALARIA**

Haematological changes are among the most common complications during episodes of malaria. Some blood parameters have been suggested as good markers of the severity of the disease, including suggestive for diagnosis of infection even before visualization of parasites on microscopy. In this study, 18 individuals from the Brazilian Amazon were sampled, 66.6% (12/18) were male, with mean age 33.5 years old. The diagnosis was first performed by conventional thick smear microscopy and subsequently confirmed by RT-PCR. The molecular diagnosis detected only episodes of malaria caused by *P. vivax*, confirming the results previously obtained by microscopy. The average parasitaemia of patients was 3266 (90 - 28500) parasites/mm<sup>3</sup> in the blood. To evaluate the possible hematologic changes during and after vivax malaria, blood samples were obtained during acute infection and on days 30 and 60 after infection. Regarding the parameters investigated, 44% (8/18) of patients proved to be anemic during malaria, with mean hemoglobin levels 12.9 (10.7 - 15.0) g/dL, increasing to 13.6 (11.4 - 15.3) g/dL during the monitoring period. Lymphopenia was observed in 38% (7/18) of individuals during the episode of illness, with a mean value of 1.31 (0.4 - 3.0) x 10<sup>3</sup>/mm<sup>3</sup> and 2.0 (0.3 - 3.7) x 10<sup>3</sup>/mm<sup>3</sup> during follow-up. Most significant changes were observed in relation to the platelets. During the acute cases, 77% of participants were thrombocytopenic, showing an average level of 98.2 (12 - 191) x 10<sup>3</sup>/mm<sup>3</sup>. During convalescence this index was normalized, with 207.3 (146 - 297) and 217.7 (148 - 292) x 10<sup>3</sup>/mm<sup>3</sup> on days 30 and 60, respectively. No individual showed up thrombocytopenic during the follow-up period. Thus, become evident haematologic changes during vivax malaria and these changes were reversed after appropriate chemotherapy of malaria cases. Financial support: FAPEMIG, CNPq and UFJF.