

## MALONDIALDEHYDE AND GLUTATHIONE PEROXIDASE IN PLATELETS OF PATIENTS WITH VIVAX MALARIA

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Malaria is an endemic pathology of tropical and subtropical areas. Thrombocytopenia is a frequent malaria complication. It can be caused by the increase in the platelets functions, phagocytosis, insufficient formation, decrease of antioxidants and oxidative stress. In this work, we studied patients infected with vivax malaria where malondialdehyde (MDA) and glutathione peroxidases (GPx) platelets levels were measured and correlated with the total platelets count, parasitaemia and time of infection. Blood samples were collected in patients in attendance by Foundation of Tropical Medicine of the Amazonas (FMTAM) (n = 106). GPx was measured by spectrophotometric automated assay and MDA for the thiobarbituric acid reactive substances test. We observed a negative correlation between MDA and platelets count ( $r=-0.674$ ,  $p < 0.001$ ) and between GPx and platelets count ( $r=-0.509$ ,  $p < 0.001$ ). Positive correlations were also verified between the time of infection and MDA ( $r=0,332$ ,  $p < 0.05$ ) and between the time of infection and GPx ( $r=0.56$ ,  $p < 0.001$ ). Also, there was a positive correlation between the parasitaemia and MDA platelet levels ( $r=0.593$ ,  $p < 0.001$ ). When compared the patients with or without thrombocytopenia ( $< 150.000$  platelet/ $\mu$ L), in thrombocytopenic patients, MDA platelet levels were increased, while platelets levels of GPx were significantly decreased. The results suggest that oxidant/antioxidant platelet status can be an important factor in ethiopathogenesis of the thrombocytopenia in malaria.

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