

PROFILE OF CYTOTOXIC Tcd8 CELLS IN DIFFERENT FORMS OF MALARIA IN CHILDREN

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Introduction: Our study focused on the value of TCD8 cytotoxicity in susceptibility to severe malaria in endemic areas. The global purpose of the work hereby was to evaluate adaptive cellular immunity during *Plasmodium falciparum* malaria through TCD8 + cytotoxic lymphocytes.

Patients & Methods: It was a prospective study, with analytical purpose that took place over a period of eight months in the Pediatric Department of Hôpital Général d'Abobo and in the Immunology and Hematology Laboratory of CHU Cocody. The study is focused on 50 children (under 15 years of age) selected based on WHO definition criteria for malaria infections (40 children with simple malaria and 10 severe malaria) a fact sheet and 10 witness persons. The samples carried were sent and processed in the said-laboratory.

Results: Among these 50 children, those under five and over five years accounted for 52% and 48% of the size respectively. Most of them were boys with a sex ration of 1.77. In children under five years, the average rate of TCD8 was higher in simple malaria (6098.16 cells/ml) than in severe malaria (3915 cells/ml) with a statically significant difference. On the other hand, in children over five-year-olds, the difference noticed was not significant despite relatively higher TC rates. However, regardless of the age of the child, the rate of TCD8 cells was higher in malaria than in witness.

Conclusion: The study hereby shows a gradual stimulation of the specific immune system by *Plasmodium falciparum*. The proliferation of TCD8+ lymphocytes in the simple form could be due to the immune activity which protects against the severe form where a clonal contraction of TCD8+ could be observed. A study with a larger sample seems necessary to draw a conclusion to the comparison of these cells.

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