Suppression of T-cell proliferative response in Plasmodium falciparum malaria patients--preliminary results.

Chemtai, AK; Okelo, GB.

Abstract:

We report suppression of T-cell proliferative responses to P.falciparum specific antigen and mitogens. T-cells derived from malaria patients were co-cultured with P.falciparum antigen or mitogens and the T-cell activity determined by radioactive thymidine incorporation assay system. We found inhibition of T-cell responses to P.falciparum antigen in 13 out of 24 malaria patients studied. The suppression ranged from 4%-60%. Results of mitogenic responses of T-cells showed a wide variation. Suppression of concanavalin A (Con A) responses ranged from 48%-64% (4 out of 10 patients) while phytohaemagglutinin (PHA) responses varied from 4%-60% (8 out of 10 patients) and those of purified protein derivative (PPD) antigen from 12%-44% (3 out of 6 patients). Together, these preliminary results show a marked impairment in T-cell responses to parasite antigen and mitogens in P. falciparum infected patients.