

Abstract

Background: Intestinal helminthic infections are common among children especially in sub Saharan Africa where they may co-infect with malaria. In co-infections synergistic effects affects severity. Therefore, there is need to understand immune dynamics and modulations in dual infections. **Materials and Methods:** Specimens from 168 children aged between 6-14 years with malaria were obtained of whom 84 (50%) had intestinal helminthes. Blood specimen was obtained and malaria parasites were demonstrated using Giemsa staining technique and cytokines were evaluated by flow cytometry technique. **Results** It was observed that pro-inflammatory IL2 and IL6 cytokine responses were more elevated in severe cases as compared to uncomplicated malaria ($P < 0.001$); levels of $\text{TNF}\alpha$ (pro-inflammatory) and IL10 (anti-inflammatory) response was directly proportional to malaria severity. There was an increased IL10 and $\text{TNF}\alpha$ response in Hookworm infection compared with malaria infection only ($P=0.009$); and ($p=0.042$) respectively; while IL2 and IL6 were reduced ($p=0.001$ and P