OVERWEIGHT AND OBESITY AS PROTECTIVE FACTORS IN SEVERE FALCIPARUM MALARIA

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Abstract. We conducted the study to determine if body mass index (BMI) could have any influence on severity of falciparum malaria. Severe (n = 196) (defined following World Health Organization criteria of 2015) and uncomplicated (n = 380) falciparum malaria patients were enrolled. Based on BMI criteria, the severe malaria group comprised 17% underweight, 70% normal weight, 9% overweight, and 4% obese patients, while in the uncomplicated malaria group the patients constituted 22%, 73%, 3%, and 2%, respectively. In both severe and uncomplicated malaria groups, significantly lower circulating parasite density and creatinine level were present in obese compared to patients in other BMI categories (p<0.05). Thus, obesity might be an indicator of reduced severity in falciparum malaria.

Keywords: *Plasmodium falciparum*, BMI, malaria, obesity, severity

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