

عنوان مقاله:

Serum lipid profile and hepatic dysfunction in moderate plasmodium falciparum infection

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خلاصه مقاله:

Plasmodium falciparum is one of four distinct species of the malaria parasite that afflict humans and pose a threat to public health. The present study seeks to ascertain the serum lipid profile and associated hepatic dysfunction of male subjects with moderate P. falciparum infection. The patients were adults (n = 11) of 21-31 years old and adolescent (n = 10) of 11-20 years old. Measurement of parasite density of peripheral blood smear was by Giemsa stained techniques. Serum lipid profile, bilirubin concentration, aspartate and alanine transferases activities were measured by spectrophotometric methods. Serum lipid profile of non-malarious and malarious subjects within the age brackets of 11-20 years showed no significant difference ($p > 0.05$); with exception of serum [LDL-C] = 30.90 ± 7.10 mg/dL and [HDL-C] = 31.10 ± 7.12 mg/dL ($p < 0.05$) of malarious subjects, which were below reference intervals. Lipid parameters of the various experimental groups showed strong positive correlations. Specifically, for subjects within age brackets of 21-31 years, [AST]non-malarious = 15.32 ± 1.06 U/L, whereas, [AST]malarious = 15.34 ± 0.95 U/L; $p > 0.05$. Also, [ALT] non-malarious = 5.13 ± 1.88 U/L and [ALT]malarious = 5.87 ± 3.00 U/L; $p > 0.05$, in subjects within age brackets of 11-20 years. Serum conjugated bilirubin (CB) concentrations of non-malarious and malarious subjects were within the range of 0.17 ± 0.06 - 0.41 ± 0.06 mg/dL; reference interval = 0.1-0.4 mg/dL; $p > 0.05$. However, serum total bilirubin (TB) concentrations of non-malarious subjects of the two age categories were within normal physiologic range. Contrary, serum TB concentrations of corresponding malarious subjects gave values above the reference intervals ($p < 0.05$). The present study showed moderate P. falciparum infection induced alteration of serum lipid profile that that was not dependent on the age brackets of the individuals and did not cause profound hepatic dysfunction in the various subjects. Similarly, the two categories of malarious subjects did not present biliary obstruction but had jaundice by virtue of their raised serum levels of TB.

کلمات کلیدی:

, Serum , Lipid profile , Hepatic dysfunction , Plasmodium falciparum , Malaria

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