

The effect of malaria on biochemical liver function parameters in Sudanese pregnant women

Nour Eldaim Elnoman Elbadawi
University of Kassala, Sudan

Objective: The study was conducted to investigate the effect of malaria on different biochemical liver function parameters in Sudanese pregnant women.

Methods: This was a case control, hospital-based study, which was carried out at Medani Maternity Teaching Hospital, Gezira State, an area of seasonal mesoendemic malaria transmission. A total of 150 pregnant women, with peripheral blood film evidence of falciparum malaria were taken as cases and 50 healthy malaria free pregnant women, were selected as controls. Albumin and globulin levels and liver enzymes were estimated colorimetrically for both patients and controls.

Results: Age of the patients ranged from 22-41 years (mean 31.0 +/-4.33). The mean gestational age of the patients at booking was 24.6 ± 7.2 weeks (range, 5-36), their mean haemoglobin level was 8.7± 2.06. Patients with malaria had higher level of AST, ALT, total bilirubin and indirect bilirubin, while the level of hemoglobin, total protein, albumin and globulin was significantly dropped. Most of the biochemical parameters were affected by the gestational age. A significant positive correlation using Pearson's correlation coefficient, was found between liver enzymes, age, hemoglobin, bilirubin level ($p < 0.005$), and a negative insignificant correlation with albumin and total protein $p > 0.005$.

Conclusion: Our study showed that the mean level of most of the biochemical liver function test parameters were below the normal reference ranges and a highly significant difference between pregnant women with malaria and their controls in the level of AST, ALT, total protein, albumin & globulin, but not in the level of total bilirubin, direct bilirubin and indirect bilirubin.

Biography

Nour Eldaim Elnoman Elbadawi has completed his Ph.D. at the age of 40 years from University of Gezira, Sudan. He is an assistant professor of Biochemistry at Faculty of Medicine & Health Sciences, University of Kassala, He was the former Head of the department of Biochemistry. He has published two papers in in reputed journals and has about ten papers in their way for publication.

nourelidaim@hotmail.com