Malaria parasitaemia among long distance truck drivers in the Niger Delta of Nigeria

Fredrick Christy C, Egenti B N, Erhabor O, Azuonwu O and Frank-Peterside N

1University of Abuja, Nigeria
2Usman Danfodiyo University, Nigeria
3Rivers State University of Science and Technology, Nigeria
4University of Port Harcourt, Nigeria

Introduction: Malaria is a life threatening disease caused by the Plasmodium parasite which is transmitted through the bite of the infected female mosquito. Malaria poses an enormous public health burden and greater than 75% of the global clinical episodes of malaria infection each year are concentrated in Africa.

Methods: A comparative cross-sectional descriptive study was conducted among long distance truckers plying one of the major national highways in the Niger Delta of Nigeria. The study was conducted between April and June 2009. A total of one hundred consecutively recruited long distance truck drivers aged 21-60 years with a mean age of 42.36±5.23 years were screened for the presence of malaria parasitaemia.

Results: Out of the 100 truck drivers screened, 35 (35%) were positive for malaria while 65 (65%) were negative. Plasmodium falciparum was responsible for all cases of malaria infection. The highest prevalence of malaria occurred among drivers in the 51-60 years age group (40.5%). The mean and standard deviation (SD) of parasite load was 1020 (125) parasites/l in subjects positive for malaria. The mean CD4 count was significantly higher among non-parasitized truck drivers compared to P. falciparum parasitized drivers 820±42.0 (731-902 cells/μl) and 570±30.0 (510-630 cells/μl) respectively (chi square=74.00; p=0.03). We observed a significant negative correlation between plasmodial infection and CD4 lymphocyte count among Plasmodium falciparum-infected subjects with r=-0.56 (p=0.001).

Conclusion: This study indicates that long distance drivers are susceptible to malaria infection. There is a need for interventions such as mass media campaigns, peer/outreach education and life skill programs in the halting point where these drivers meet in order to bring about a reduction in the prevalence of malaria infection. There is also the need for the promotion of long lasting insecticidal bed nets (LLINs), intermittent preventive treatment (IPTp) and effective case management of malarial illness among long distance drivers.

christyfredoo2008@yahoo.com