

Session: OS123 Issues concerning treatment of malaria, echinococcosis and cryptosporidiosis

Category: 7d. Parasitic disease epidemiology

24 April 2017, 11:54 - 12:04
OS0594

Prevalence, risk factors and antimalarial resistance pattern of Plasmodium falciparum among pregnant women in the Kaduna metropolis, Nigeria

Idris Abdullahi Nasir¹, Maryam Muhammad Aliyu², Umar Yahaya Abdullahi²

¹*University of Ilorin; Medical Microbiology and Parasitology*

²*National Defense Academy; Biological Science*

Background: Pregnant women infected with malaria represents is a significant obstetric problem especially in the face of antimalarial resistance. This cross-sectional study investigated the prevalence of malaria parasitaemia, associated risk factors as well as the antimalarial resistance pattern of plasmodium isolates from pregnant women attending four (4) selected Secondary Health facilities in Kaduna state, Nigeria.

Material/methods: Blood samples were collected from 353 pregnant women attending selected hospitals. Malaria microscopy and parasite density count were conducted based on standard protocols. Antimalarial susceptibility test (using chloroquine, artesunate, artether and sulfadoxin-pyrimethamine), and haemoglobin concentrations were determined using schizont maturation assay and methaemoglobin method respectively. Multiple-drug resistance (MDR) was defined by resistance against ≥ 3 antimalarial drugs.

Results: The overall prevalence of plasmodiasis was 22.4%. Out of those infected, 5.2% was found to be anaemic. Malaria parasitaemia was significantly associated with parity, residential area, age of subjects and use of preventive measures against malaria ($p < 0.05$) but not with hemoglobin concentration, occupation and trimester of pregnancy ($p > 0.05$). Malaria parasites from the pregnant women exhibited the highest resistance against chloroquine, 75 (94.9%) followed Artemether , 30 (37.9%) then sulfadoxine-pyrimethamine, 29 (36.7%) and least resistant to artesunate, 28 (35.4%). The prevalence of MDR was 40.5% (32/79).

Conclusions: The prevalence of malaria was relatively high due to inadequate and/or ineffective preventive measures adopted by pregnant women. More so, significant isolates of *P. falciparum* exhibited multidrug resistance against antimalarial agents tested.