LETTER TO THE EDITOR

PREVALENCE OF MALARIA AMONG HIV/AIDS PATIENTS AT AHMADU BELLO UNIVERSITY TEACHING HOSPITAL, KADUNA, NIGERIA

Dear Editor

Human immunodeficiency Virus (HIV) has continued to rise worldwide. Malaria infection has increased the disease burden, which inspired the recently Roll-Back Malaria African Conference in Abuja Nigeria in year 2000. The epidemiology of HIV/AIDS has been increasing in Nigeria. Epidemiological data on prevalence of malaria and on HIV/AIDS in Nigeria is scanty. The prevalence of malaria in adults with HIV/AIDS in Kaduna is not known. We have set out to investigate the prevalence of malaria in adults affected by HIV/AIDS in Kaduna.

This investigation was carried out at the Genito-Urinary Medical (GUM) Clinic of ABU Teaching Hospital Kaduna Nigeria. The patients for the study were those who fulfilled the following criteria:
1. 18 to 50 year.
2. Males and non-pregnant females
3. Newly diagnosed patients with HIV-1
4. HIV-1 patients that have not taken anti-malaria treatments in the preceeding 7 days
5. HIV –1 patients not on anti-retroviral drugs.

There were 140 patients (70 males and 70 females). The duration of study was February - June 2001.

Blood samples were obtained by venepuncture from all the patients and investigated for malaria parasites (MPs) and HIV antibodies.

Of the 140 patients, 98 (70%), consisting of 56 males and 42 females were positive for malaria parasite. Statistical analysis did not show a significant gender difference (p=0.48).

The age group 23-27 years accounted for 25.51%, 28-32 years 19.38% and 33-37 years 16.32%. The three age groups accounted for 61.21% of all positive MPs followed by 38-48 years with 18.36%.

The study showed that 70% of HIV-1 positive patients have concurrent malaria parasitaemia compared to malaria parasitaemia in normal adults and children, which are 22.5% and 57.55% respectively in studies elsewhere. This higher prevalence of malaria parasitaemia due to immunological factors. Malaria infection in humans involves specific response of malaria-specific CD4 + Th1 and Th2 subjects of lymphocytes especially in Plasmodium falciparum, which is predominant in Nigeria. Other cytokines are involved in hepatic stages of P. falciparum infection, which has acted as suppressor of the anti-inflammatory cells. These effects lead to short-term immune suppression. The added immune deficiency due to Human Immunodeficiency Virus Infection explains the high prevalence of malaria infection in HIV patients as indicated by our study. In HIV infection there is down modulation and reduction in CD4+T- cell sub-population and defective cell mediated immunity.

Our investigation did not reveal any gender difference in the infectivity of malaria on HIV persons. Other studies on malaria infestation have not revealed any gender bias. Several control, preventive, and treatment measures have been targeted at the age groups most affected. We recommended that patients living with HIV/AIDS be placed on malaria prophylaxis.

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References