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MICRONUTRIENT DEFICIENCY AMONG WHO STAGE I/II HIV INFECTED INDIVIDUALS IN KADUNA AND ZARIA, KADUNA STATE: A CASE- CONTROL STUDY

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Background: Persistent oxidative stress, hypercatabolism, increased HIV RNA replication and pro-inflammatory cytokines/ proteins leading to increased demand, utilization and subsequent deficiencies of anti-oxidant micronutrients and malnutrition are hallmarks of untreated HIV infection progression. This research compared some indices of malnutrition such as body mass index (BMI), hemoglobin, serum zinc, copper, and albumin among untreated HIV infected patients and matched HIV negative healthy persons.

Materials & Methods: The BMI, hemoglobin, and serum zinc, copper, and albumin levels of 90 antiretroviral naive adult patients attending HIV clinics in Kaduna and Zaria were compared with age-/sex-matched HIV negative healthy controls from the local communities. Inclusion criteria for cases and controls were absence of pregnancy, immunosuppressive and/or psychiatric illness; in addition to stage 1 and 2 infection, and CD4+ >500 cells/ μ l for patients.

Results: HIV infected patients had significantly lower BMI (25.8 kg/m²), hemoglobin (10.0 g/dl), serum zinc (0.01 ppm), copper (-0.4 ppm), and albumin (36.0 ppm) than BMI (27.6 kg/m²), hemoglobin (13.0 g/dl), serum zinc (0.16 ppm), copper (0.04 ppm), and albumin (39.0 ppm) of healthy controls.

Conclusion: Early stages of HIV infection, even if asymptomatic, are associated with micronutrients deficiency and malnutrition, thus the imperative for micronutrient supplementation in HIV infection is needed.

Biography

Obiako, Onyeadumarakwe Reginald's area of specialty is Neurology and HIV pharmacology. He has completed his Bachelor of Medicine and Surgery (MBBS), from University of Port Harcourt, Choba, Port Harcourt (1987) and Master of Science (M.Sc, Pharmacology) from Ahmadu Bello University Zaria (1999). Recently he is a Doctor of Philosophy (Ph. D, Pharmacology with special interest in HIV), in Ahmadu Bello University Zaria (2018).

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