

Plasmodium falciparum and Schistosoma haematobium Co-infection in School Aged Children in Jinduut, Shendam Local Government Area of Plateau State, North Central Nigeria

Authors : D. A. Dakul, T. M. Akindigh, B. J. Dogonyaro, O. J. Abba, K. T. Tangtur, N. Sambo, J. A. E. Okopi, J. A. Yohanna, G. E. Imade, G. S. Mwansat, S. Oguche

Abstract : Malaria and urinary Schistosomiasis are both endemic in Nigeria and pose a serious health challenge in rural areas where co-infections are common. This descriptive cross sectional study was carried out to determine the prevalence of co-infection and the impact of concurrent infection on haemoglobin concentration, Eosinophil and CD4+ T-lymphocyte counts. Plasmodium falciparum and Schistosoma haematobium infection were determined by Malaria Rapid Diagnostic Test (MRDT) kits and the presence of visible haematuria respectively and confirmed by conventional Polymerase Chain Reaction (cPCR). P values < 0.05 were considered statistically significant. Of the 110 children examined, 13 (11.8%) had concurrent infection with Schistosoma haematobium falciparum, 46(41.8%) had Plasmodium falciparum infection while 16(14.5%) had Schistosoma haematobium infection. A strong association between co-infection and the ages of 10-15 years with a 36.4% prevalence of anaemia was observed. Malaria was significantly associated with anaemia than with concurrent infections or schistomiasis alone. Co-infection with both pathogens and a high prevalence of anaemia was observed in Jinduut community. Although the causes of anaemia are multi-factorial, further investigation into the extent to which malaria and urinary schistosomiasis contribute to anaemia is needed. Also, integrated control efforts must be strengthened to mitigate the impact of concurrent infection in this group of vulnerable members in the community. The results can be applied to other communities during control.

Keywords : co-Infection, plasmodium falciparum and schistosoma haematobium, Jinduut, Nigeria

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