

CO-INFECTIONS WITH MALARIA, URINARY SCHISTOSOMIASIS, TYPHOID FEVER AND HEPATITIS B VIRUS AMONG SCHOOL CHILDREN IN OGBESE, ISE-EKITI, SOUTH-WESTERN NIGERIA

BY

*Ologunde, C.A¹., Olaoye, A.B¹., Ibikunle, K.S.O²., Ogunfowokan, O.E¹., Akingbade, D.O¹.,
Abubakar, B.M¹., Teloye, A.M¹., Abiodun, I.L¹., Salau, F.B., Awolusi, O.M¹.,

Department of Science Technology, Federal Polytechnic, Ado-Ekiti, Ekiti State, Nigeria

1. Department of Maths & Statistics, Federal Polytechnic, Ado-Ekiti, Ekiti State, Nigeria

E-mail: dr_charlesologunde@yahoo.com (*Corresponding author)

ABSTRACT

Parasitic infections and infections caused by viral and bacterial agents present a major cause of morbidity, co-morbidity and mortality in tropical Africa. In the present study, we investigated the prevalence of malaria and their respective co-infections with urinary Schistosomiasis, Typhoid fever and hepatitis B virus among 200 school children between ages of 4 – 15 in South-Western Nigeria. Results were derived from microscopical and serological examination of blood films for malaria parasites, urine examination for urinary Schistosomiasis and serological tests for Typhoid fever and hepatitis B virus. Classes of intensity were not determined but noted as only presence or absence of infection. The prevalence of malaria, urinary Schistosomiasis, Typhoid fever and hepatitis B virus were 78%, 68%, 45% and 6.5% respectively. The overall prevalence of co-infection was 148(74%). The rate of double, triple and quaternary co-infections were 81(40.5%), 64(32%) and 3(1.5%) respectively. The highest double infection occurred in malaria and urinary Schistosomiasis with a percentage of 51%(95 C.I; 44.1 – 57.9%). This is closely followed by malaria and Typhoid fever with a percentage of 43.5%(95% C.I; 35.1 – 48.9%) while the lowest was Typhoid fever and hepatitis with percentage of 3.5%(95% C.I; 1.0 – 6.0%). The result also shows that 30.5% of the 200 school pupils screened had triple infection with malaria, urinary Schistosomiasis and Typhoid fever. Three (3) representing 1.5% of the pupils screened had quaternary infection with malaria, urinary Schistosomiasis, Typhoid fever and hepatitis. The result also shows that male had the overall highest infection rate of 55%(95% C.I; 52.2 – 59.5%). Although all the pupils were screened for HIV, they were all negative. Further studies is required to understanding the complex immune interactions involved in the co-infections and its effect on the outcome of disease presentation with the aim of designing control interventions.