

World Congress and Expo on **Applied Microbiology**

August 18-20, 2015 Frankfurt, Germany

Coinfection of malaria and intestinal parasites among school children in Ajagba, Southwestern Nigeria

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Concomitant parasitic infections in the developing world are increasing, yet most studies are focused on single parasite. In this study, the extent of co-infections was investigated. Three hundred consenting individuals consisting of 136 males and 164 females participated in this study. Faecal specimens and venous blood were collected from the participants. The formal-ether concentration method were used to screen the faecal samples for helminths and protozoans, while Giemsa-stained blood smears was used for malaria parasite and packed cell volume (PCV) was determined by hematocrit. Demographic information from all the participants and data were analyzed using Chi-square test. The prevalence of Malaria parasite, Hookworm, *Ascaris lumbricoides*, *Strongyloides stercoralis*, *Entamoeba histolytica* were 27.3%, 24.6%, 8.7%, 6.6%, 6.6% respectively. Females (55.0%) were generally more infected with all parasite than the males (45.1%) and it is statistically significance ($p=0.000$). Co-infection of parasites were observed as follows; Hookworm, *Ascaris lumbricoides* and Malaria parasite (2.7%), Hookworm, *Entamoeba histolytica* and Malaria parasite (0.7% histolytica), Hookworm, *Ascaris lumbricoides*, Malaria Parasite and *Entamoeba histolytica* (1.3%), *Entamoeba* and *Ascaris lumbricoides* (0.7%), Hookworm and *Strongyloides stercoralis* (2.0%), *Ascaris lumbricoides* and hookworm (3.3%), Hookworm and Malaria Parasite (3.3%), *Ascaris lumbricoides* and Malaria (2.7%), *Entamoeba histolytica* and Malaria (2.0%), *Ascaris lumbricoides* and *Strongyloides stercoralis* (0.7%) and *Ascaris*, *Strongyloides stercoralis* and Malaria Parasite (0.7%). The overall Mean Packed cell Volume (PCV) of the population was 29.40 ± 5.16 and it statistically significant ($p=0.029$). These result showed the existence of polyparasitism in Ajagba community and it is a major public health problem hence there is need for improved environmental condition which includes clean water supplies, periodic de-worming of children in the community should be initiated and action against deficiency in sanitary facilities, poor personal hygiene should be addressed by the government.

Biography

O.S. Bolaji started his career in 1990 at Obafemi Awolowo University Teaching Hospital School of Medical Laboratory Sciences where he obtained Associate Certificate of Medical Laboratory Science Council of Nigeria (AMLSCN- bacteriology option) in 1994. He proceeded to Imo State University, Owerri, Nigeria and obtained in 2002 Post Graduate Diploma in Medical Laboratory Science- Microbiology option (PGDMLS), M.Sc. Medical Parasitology and Entomology in 2005 and finally Ph.D Medical Parasitology in 2011 from Ladoke Akintola University of Technology (LAUTECH), Ogbomoso-Nigeria. His thesis titled 'Molecular Epidemiology of Urinary Schistosomiasis among School children in Osun State, Nigeria'. He joined LAUTECH as an Assistant Lecturer in 2006 and is presently a Senior Lecturer in the Department of Medical Microbiology and Parasitology, Faculty of Basic Medical Sciences, College of Health Sciences, Osogbo, Osun State, Ladoke Akintola University of Technology, Ogbomoso, Oyo State. He lectures Medical students (MBBS Degree), Medical Laboratory Science students (B.MLS), Nursing students (B.NSc.), PostGraduate Diploma and M.Sc. students in Medical Parasitology. He is a Lecturer, Practising Medical Laboratory Scientist and Research Scientist. He is currently on research activities 'Genetic Diversity of *Schistosoma haematobium* among humans in endemic areas of Osun State'. He is presently designated as a Visiting Scholar (Scientist) to Johns Hopkins University Bloomberg School of Public Health, Baltimore, USA in the Department of Molecular Microbiology and Immunology for 3months.

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