

Sickle cell anaemia and malaria in Uganda

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Worldwide malaria accounts for 800,000 deaths annually. Sub-Saharan Africa (SSA) bears the brunt of malaria burden with 91% of fatalities. In SSA it is one of the primary causes of morbidity and mortality in children below five years and pregnant women. In Uganda 70,000 to 100,000 child deaths are registered annually; a large majority of these deaths are due to malaria.

Likewise the majority of children worldwide who have sickle cell disease (SCD) live in SSA. Studies estimate that more than 300 000 children are born annually with SCD. Sickle cell anaemia (SCA), the most severe form of SCD, accounts for 80% of these births, of which 200,000 occurs SSA with 10,000 to 15,000 babies with SCA born annually in Uganda.

The co-endemic existence of malaria and SCA in Uganda poses a significant public health problem. 70-80% of children with SCA die before the age of five years and malaria is a major contributor to these deaths. Also, malaria in SCA is associated with vaso-occlusive and hyper-haemolytic episodes. In 2002 Kizito et al, found a 15% prevalence of malaria among febrile SCA children less than 12 years old. In 2005 Kamugisha et al demonstrated 41.7% malaria prevalence among children with SCA and aplastic crisis. However the exact burden of malaria in SCA at the present time is not well-documented and the effect of prevention measures such as insecticide-treated bednets and chemoprophylaxis has not been well-studied in SCA patients. However it is probable that malaria in SCA remains a significant contributor to under five mortality in Uganda and hence an important factor in the effort to achieve MDG 4.

Biography

Christopher M. Ndugwa is now a Senior Investigator/CQMP Officer at the Makerere University-Johns Hopkins University (MU-JHU) Research Collaboration for Paediatric HIV. He is in charge of the Sickle Cell Anaemia Clinic/Day Care Centre at Mulago Hospital, Department of Pediatrics. He is also the Chairman of the National Polio Eradication Committee. He is Professor Emeritus at the Department of Pediatrics and Child Health, College of Health Sciences, Makerere University and was the Head for 14 years until 2006.

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