

More research called for into HIV and schistosomiasis coinfection in African children

April 17 2014

Researchers from LSTM have called for more research to be carried out into HIV and schistosomiasis coinfection in children in sub-Saharan Africa. In a paper in *The Lancet Infectious Diseases* LSTM's Professor Russell Stothard, working with colleagues in the department of Parasitology and researchers from Cape Western Reserve University, in Cleveland Ohio, University of Cambridge and the Royal Veterinary College looked at previous research into the joint burden of HIV/AIDS and schistosomiasis of children, and found that while disease-specific control interventions are continuing, potential synergies in the control efforts for the two diseases have not been investigated.

The team focussed on children with schistosomiasis and assessed the risk of increased HIV transmission and progression and impaired response to drugs when given alongside HIV interventions. The team concluded from their research that there needs to be more work carried out into understanding the interactions of the diseases within children to look at the potential for combined responses.

Schistosomiasis is a chronic inflammatory disease caused by a water-borne parasitic blood fluke, infecting 220 million people in sub-Saharan Africa, with even more people at risk, mainly children. While infection can happen in very early childhood depending on an infant's environmental exposure to parasite-infested water, until recently early exposures have been overlooked with treatment, mass drug

administration of praziquantel, given to children of school age.

HIV, like schistosomiasis, is one of the most widespread infections in the world and there is a substantial geographical overlap between the two. Interventions against the disease have focussed on universal access to highly active antiretroviral therapy (HAART), but many children in sub-Saharan Africa for care late in their HIV progression and there are nearly 1000 new cases of paediatric HIV infection every day.

First Author and Project Paediatrician, Dr Amaya Bustinduy, said:

"While multidisease approaches are being promoted by WHO, such as those for HIV and Malaria, platforms for research and control of HIV and schistosomiasis do not exist. Both disease pose difficulties in terms of their diagnosis in early childhood, and all studies of coinfection so far have been limited to adults. It is thought that in adults schistosomiasis infection may precede that of HIV, but clearly as HIV infection in infants and young children is nearly always vertically transmitted (from mother to child) HIV infection precedes that of [schistosomiasis](#)."

The paper goes on to explore the effect that HIV has on the efficacy of the drugs taken to treat the parasitic [infection](#), explores the lack of data available for the dosage of praziquatal in children and its interaction with HAART as well as the potential effect of HIV on the expanding childhood vaccination programme across sub-Saharan Africa. "We hope that this review will underline the real need for further work into the effects of coinfection" added Professor Russell Stothard, Corresponding Author of the paper, "Failure to develop and implement a realistic research agenda for infected children will result in the neglect of the youngest [children](#) who might be at particular risk for increased HIV transmission, HIV progression, and impaired response to drugs."

Provided by Liverpool School of Tropical Medicine

Citation: More research called for into HIV and schistosomiasis coinfection in African children (2014, April 17) retrieved 18 April 2024 from <https://medicalxpress.com/news/2014-04-hiv-schistosomiasis-coinfection-african-children.html>

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