



Prevalence and intensity of human soil transmitted helminth infections in the Akonolinga health district (Centre Region, Cameroon): Are adult hosts contributing in the persistence of the transmission?

Jean Bopda^{a,1}, Hugues Nana-Djeunga^{a,b,1}, Jean Tenaguem^a, Joseph Kamtchum-Tatuene^a, Raceline Gounoue-Kamkumo^{a,c}, Clément Assob-Nguedia^d, Joseph Kamgno^{a,e,*}

^a Centre for Research on Filariasis and other Tropical Diseases (CRFILMT), P.O. Box 5797, Yaounde, Cameroon

^b Parasitology and Ecology Laboratory, Department of Animal Biology and Physiology, Faculty of Science, P.O. Box 812, University of Yaounde 1, Yaounde, Cameroon

^c Laboratory of Animal Physiology, Department of Animal Biology and Physiology, Faculty of Science, P.O. Box 812, University of Yaounde 1, Yaounde, Cameroon

^d INSAM, Department of Medicine and Biomedical Sciences, University of Buea, P.O. Box 63, Buea, Cameroon

^e Department of Public Health, Faculty of Medicine and Biomedical Sciences, P.O. Box 1364, University of Yaounde 1, Yaounde, Cameroon

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ABSTRACT

Background: Soil-transmitted helminthiasis (STHs) are among the most prevalent afflictions of the developing world, with approximately 2 billion people infected worldwide. Heavily infected individuals suffer from severe morbidity that can result in death. These parasitic diseases also impair physical and mental growth in childhood, thwart educational advancement, and hinder economic development. Periodic deworming with Albendazole or Mebendazole of high-risk groups (school-age children, preschool children, and pregnant women) can significantly lower the levels of infections below the threshold associated with morbidity. However, an important proportion of the population (adults) is excluded from this high-risk group treatment based-strategy, and might lead to the persistence of these diseases in endemic areas despite the repeated treatments. The main objective of this study was to evaluate the contribution of this neglected at-risk group in the spread and persistence of STH in Cameroon.

Methods: A cross sectional survey was conducted in the Akonolinga health district (Centre Region, Cameroon) to assess the prevalence and intensity of these helminth infections. Stool samples were collected from males and females, aged 18 years and over, and analyzed using the Kato-Katz technique.

Results: A total of 334 patients, among which 181 (54.2%) females and 153 (45.8%) males, were examined. The STH of major concern was found in this group of individuals, with overall prevalence equal to 18.0% (95% CI: 14.2–22.4) for *Ascaris lumbricoides*, 43.7% (95% CI: 38.5–49.1) for *Trichuris trichiura*, and 7.5% (95% CI: 5.1–10.8) for *Necator americanus*.

Conclusion: This study reveals that STH infections are prevalent in adults in the Akonolinga health district, with moderate to high risk and light intensity of infection. These infected adults might constitute a potential parasite reservoir and a source of dissemination and persistence of these infections, highlighting the need to really take into account this neglected group of individuals in the mass treatment policy.

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* Corresponding author at: Centre for Research on Filariasis and other Tropical Diseases (CRFILMT), P.O. Box 5797, Yaounde, Cameroon.

E-mail addresses: bopda@crfilmt.org (J. Bopda), nanadjeunga@crfilmt.org (H. Nana-Djeunga), tenaguem@gmail.com (J. Tenaguem), jkamtchum@yahoo.fr (J. Kamtchum-Tatuene), gounoue@crfilmt.org (R. Gounoue-Kamkumo), julesclement@yahoo.fr (C. Assob-Nguedia), kamgno@crfilmt.org (J. Kamgno).

¹ Equal contribution.

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