EVALUATING THE IMPACT OF ALBENDAZOLE ON *Trichuris trichiura* PREVALENCE IN AN ENDEMIC AREA OF BAHIA, BRAZIL

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ABSTRACT

Introduction: In Brazil, soil-transmitted helminths (STH) predominantly affect the North and Northeast regions, where access to water, sanitation, and hygiene is limited. Albendazole (ALB) is the primary treatment for STH. However, it is crucial to assess its efficacy to determine if ALB can be recommended. This study aims to evaluate the effectiveness of ALB in treating *Trichuris trichiura* (Tt) infections in an endemic area of Brazil. **Methodology:** This temporal analysis study was conducted in the rural area of Conde, Brazil. Residents were followed before and after ALB treatment (ALBt). Participants were evaluated using the Kato-Katz method to quantify the presence of Tt and *Ascaris lumbricoides* (Al) eggs. In 2004, 777 individuals were assessed, and follow-up evaluations were conducted after two rounds of ALBt in May and October 2005. Post-treatment collections occurred in December 2006. In 2018, a new study of 340 individuals was included, with evaluations conducted before and 30 days after ALB treatment. The parasite load was measured in eggs per gram (EPG) of feces. **Results**: In 2004, 70.8% of individuals tested positive for Tt and 56.6% for Al. Post-treatment analysis showed that 87.5% of individuals still had Tt eggs and 67.9% still had Al eggs. In 2018, 40.3% and 53.8% of individuals tested positive for Al and Tt, respectively. Post-treatment evaluations revealed that the positivity for Al reduced to 7.3% while 52.6% still had Tt eggs. At that timepoint the median parasite load for Al decreased from 7542 (1452-24810) to 6912 (2412–17778) EPG. For Tt, the median parasite load was reduced from 420 (120–1236) to 288 (96–927) EPG. **Conclusion**: Over time, the prevalence of Al appears to decrease, indicating a better response to ALBt. In contrast, Tt infections persist, suggesting a possible therapeutic failure of ALB. These findings highlight the need for alternative treatment strategies and continual monitoring in endemic areas to effectively control Tt infections.

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