PREVALENCE OF CHAGAS DISEASE BEFORE, DURING AND AFTER THE COVID-19 PANDEMIC IN THE DEPARTMENT OF COCHABAMBA-BOLIVIA.

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Abstract

Chagas disease, caused by *Trypanosoma cruzi*, is widespread in Bolivia, affecting between 20% and 40% of the population, especially in rural areas. This study analyzed the seroprevalence of Chagas disease and *Triatoma infestans* infestation in three periods: before the pandemic (2019), during the pandemic (2020-2022), and after the pandemic (2023-2024). Before the pandemic, the overall prevalence was 16%, which increased to 19% during the pandemic due to interruptions in control programs, and then decreased to 15% in the post-pandemic period. By age group, in 2019, the positivity rates were 0.9% for children aged 1-4 years, 2.8% for those aged 5-14 years, and 16.6% for adults aged 15-90 years. During the pandemic, these rates increased to 3.1%, 2.9%, and 14.5%, respectively, while in the post-pandemic period, they stabilized at 2.56%, 2.57%, and 13.54%. The percentage of infected triatomines also varied, going from 40.7% before the pandemic to 42.3% during the pandemic, and then stabilizing at 40% afterward.

These changes reflect alterations in transmission dynamics linked to interruptions in control programs. The increase in young children suggests recent exposure, while the high seroprevalence in adults indicates sustained transmission. Triatomine infestation remained high, highlighting the reduction in surveillance and insecticide application.

Although no significant changes were observed, specific variations emerged. The impact of COVID-19 highlighted vulnerabilities in health infrastructure and how reduced monitoring can reverse previous progress. The post-pandemic prevalence reflects the risk of persistent transmission, particularly in rural areas. Although there has been some recovery in control strategies, challenges remain. Epidemiological surveillance, vector control, and timely access to diagnosis and treatment remain essential to mitigating the impact of the disease in Cochabamba and Bolivia.

Keywords: prevalence, Covid-19, Trypanosomiasis