

Chagas disease: Present status of pathogenic mechanisms and chemotherapy

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There are approximately 7.8 million people in Latin America, including Chile, who suffer from Chagas disease and another 28 million who are at risk of contracting it. Chagas is caused by the flagellate protozoan *Trypanosoma cruzi*. It is a chronic disease, where 20%-30% of infected individuals develop severe cardiopathy, with heart failure and potentially fatal arrhythmias. Currently, Chagas disease treatment is more effective in the acute phase, but does not always produce complete parasite eradication during indeterminate and chronic phases. At present, only nifurtimox or benznidazole have been proven to be superior to new drugs being tested. Therefore, it is necessary to find alternative approaches to treatment of chronic Chagas. The current treatment may be rendered more effective by increasing the activity of anti-Chagasic drugs or by modifying the host's immune response. We have previously shown that glutathione synthesis inhibition increases nifurtimox and benznidazole activity.