

Deaths from Chagas disease under-reported

May 18 2017

Chagas disease, affecting millions of people in Central and South America, is classified as one of the 17 most important neglected diseases by the World Health Organization. Now, researchers have found that even the non-symptomatic stage of Chagas infection, which can last for many years, more than doubles a person's risk of death. The new study, published in *PLOS Neglected Tropical Diseases*, also concludes that deaths from Chagas have likely been under-reported in the past.

Chagas disease is an insect-borne parasitic disease caused by *Trypanosoma cruzi*. A bite from an infected Triatominae, or kissing bug, can cause initial swelling, fever, and headaches but symptoms generally fade away after a few months. Infected people can then live for decades with no more signs of the disease, during which time clinicians have assumed they have no increased mortality. Years later, it's known that cardiac, neurological, and digestive symptoms of Chagas can reemerge.

In the new work, Ligia Capuani, of the University of Sao Paulo, Brazil, and colleagues retrospectively studied 2,842 Chagas-positive and 5,684 Chagas-negative [blood donors](#) in Sao Paulo from 1996 to 2000. Since blood donors are routinely screened for symptoms of active Chagas disease, it was assumed that blood samples testing positive for the parasite were from individuals in the indeterminate phase of the disease. Their records were cross-referenced with the Brazil national mortality information system to determine whether each person had died and, if so, the cause of [death](#).

Among those who tested positive for Chagas, 159 (5.6%) died during the

course of the study, whereas only 103 (1.8%) who tested negative for the disease died, representing a more than doubling of the overall death risk. Moreover, when only deaths due to Chagas or to underlying cardiac abnormalities were analyzed, the difference was even greater—those with the disease had a 17.9 time greater risk of death. However, Chagas was often not listed as a cause of death in patients who had tested positive for the disease and died of heart problems.

"The fact that Chagas disease was not reported as an underlying or associated cause of death on the death certificate of 42% of seropositive donors that died due to cardiac causes demonstrates under ascertainment of Chagas disease pathogenesis, highlighting its status as a neglected tropical disease," the researchers say. "Research is urgently needed in order to test new therapeutic options with fewer side effects and to find better correlates of [disease](#) progression."

More information: Capuani L, Bierrenbach AL, Pereira Alencar A, Mendrone A Jr, Ferreira JE, Custer B, et al. (2017) Mortality among blood donors seropositive and seronegative for Chagas disease (1996-2000) in São Paulo, Brazil: A death certificate linkage study. *PLoS Negl Trop Dis* 11(5): e0005542.
doi.org/10.1371/journal.pntd.0005542

Provided by Public Library of Science

Citation: Deaths from Chagas disease under-reported (2017, May 18) retrieved 5 May 2024 from <https://medicalxpress.com/news/2017-05-deaths-chagas-disease-under-reported.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--