OPEN ACCESS Freely available online

ISSN: 2329-9088
Tropical Medicine & Surgery

Opinion Article

Chagas Disease: An Important Cause of Trypanosomiasis and its Medication

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DESCRIPTION

Trypanosoma cruzi infection causes Chagas disease, often known as American trypanosomiasis. It is carried by a bug called a triatomine bug, also known as a "kissing bug". It is widespread due to global migration and is endemic to Latin America [1]. Even though the condition was discovered more than a century ago, only two outdated medications are currently used to treat it, and many unanswered questions regarding the disease's course, its pathologies, and not to mention the evaluation of treatment efficacy, are still up for debate. In fact, the current state of the information and data does not permit the making of any definitive claims about the requirements for therapy and the course of action for Chagas patients [2].

In addition to being endemic in 21 nations in Latin America, Chagas disease (CD), also known as American trypanosomiasis, is a serious public health issue that is progressively spreading to other regions, primarily owing to migration, including Europe, North America, Japan, and Australia [3]. With 6 million people infected worldwide and 7,000 deaths each year, CD is the leading parasite cause of mortality in Latin America and a substantial contributor to the global burden of cardiovascular disease. CD is also the leading cause of infectious cardiomyopathy worldwide [4]. Depending on the estimate, the health problems connected with CD result in a loss of more than half a million Disability-Adjusted Life Years and a cost of many billions of dollars annually, including decreased worker productivity and mortality. Less than 1% of those with CD have access to diagnosis and treatment because it mostly affects people in rural, low-income areas [5].

There are actually two clinical phases of the disease. The acute phase, which can continue up to 2 months and is typically asymptomatic or unnoticed, is fatal for 2-8% of infected individuals. At this stage, the parasite burden peaks and can be quickly identified in blood through direct inspection using microscopy or PCR.T. cruzi multiplies rapidly inside an infected person and invades a variety of host cell types. Following the activation of the host immune system, the parasite load dramatically decreases, and the infection is subsequently under control.

The acute phase of infection can be treated with two outdated nitro-heterocyclic medications, benznidazole (Abarax/ELEA) and nifurtimox (LAMPIT/Bayer).

CONCLUSION

The use of these medications is restricted because of their limited availability and adverse effects, which include allergic dermatitis, pruritus, and gastrointestinal symptoms among others, despite mounting evidence of their effectiveness in the chronic indeterminate stage of the disease. These figures demonstrate the immediate need for increased access to therapies that are already available, as well as the future demand for effective and safer medications.

The opinions expressed in this essay were those of the author and not necessarily those of his institution when it was given at "ISNTD d3 2016" on May 25 in London, UK. The author would like to acknowledge Rob Don for his critical reading of this work, Isobel Firth and Louise Burrows for editing it, and colleagues and partners for their interesting and thought-provoking debate on the subject. DNDi is appreciative of the public and private donors that have supported us financially since its founding in 2003.

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Received: 24-Nov-2022, Manuscript No. TPMS-22-18917; **Editor assigned:** 28-Nov-2022, Pre QC No. TPMS-22-18917 (PQ); **Reviewed:** 13-Dec-2022, QC No TPMS-22-18917; **Revised:** 20-Dec-2022, Manuscript No. TPMS-22-18917 (R); **Published:** 27-Dec-2022, DOI: 10.35248/2329-9088.22.10.278.

Citation: Dorn C L (2022) Chagas Disease: An Important Cause of Trypanosomiasis and its Medication. Trop Med Surg.22.10:278.

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