Biomarkers for the Diagnosis, Treatment Follow-Up, and Prediction of Cardiac Complications in Chagas Disease. Recent.

Juan Ospina 1, M. Morales-Velázquez 1, J.P. Barón-Vera 1, M.I. Osorio-Pulgarín 1, and Miryan Sánchez 1

¹Instituto Colombiano de Medicina Tropical Antonio Roldan Betancur

May 16, 2023

Abstract

Chagas disease is caused by the Trypanosoma cruzi parasite and is transmitted by infected triatomine bugs. This infection affects approximately 8 million people in the Americas, and due to globalization and displacement, it is becoming increasingly common to find infected patients worldwide. Diagnosis of the disease in its acute form is relatively simple, as the parasite can be detected in peripheral blood smears, and symptoms are visible. However, in its chronic condition, the parasite is almost undetectable, and indirect tests are necessary to determine the presence of antibodies in infected patients. It is important to note that a single test is not enough to confirm the disease, as a second serological test should confirm the diagnosis. If the results are contradictory, a third test should be performed to solve the problem. Unfortunately, laboratories may not have access to all necessary tests in many rural areas where the disease is more frequent. Rapid tests to diagnose this disease present problems, such as significant variations in sensitivity and specificity in different countries. Therefore, searching for new biomarkers that allow for optimal correlation is essential. In this work, we have searched scientific literature from the last years for mentions of novel biomarkers for diagnosis, treatment follow-up, and prediction of cardiac complications in Chagas disease in its chronic phase.

Hosted file

Manuscript.docx available at https://authorea.com/users/618715/articles/643677-biomarkers-for-the-diagnosis-treatment-follow-up-and-prediction-of-cardiac-complications-in-chagas-disease-recent

Hosted file

Figure 1.svg available at https://authorea.com/users/618715/articles/643677-biomarkers-for-the-diagnosis-treatment-follow-up-and-prediction-of-cardiac-complications-in-chagas-disease-recent

Hosted file

Figure 2.svg available at https://authorea.com/users/618715/articles/643677-biomarkers-for-the-diagnosis-treatment-follow-up-and-prediction-of-cardiac-complications-in-chagas-disease-recent

Hosted file

Table1.docx available at https://authorea.com/users/618715/articles/643677-biomarkers-for-the-diagnosis-treatment-follow-up-and-prediction-of-cardiac-complications-in-chagas-disease-recent