Reviewer’s report

**Title:** Association of Trypanosoma cruzi infection with electrocardiographic abnormalities within a non-endemic state in Northeast Mexico

**Version:** 1  
**Date:** 17 October 2013

**Reviewer:** Francisco Javier Carod Artal

**Reviewer’s report:**

In this interesting article, authors investigated the prevalence of Chagas disease in 10 municipalities from Nuevo Leon, Mexico. Prevalence of Trypanosoma cruzi infection was 2%, a ten-fold higher prevalence than previously reported.

This paper is nice, well written and should deserve further consideration to be published in the journal. New epidemiological studies about prevalence of Chagas disease are indeed important, and this paper may confirm the increase prevalence of the disease in Mexico.

I have only some minor comments to improve the manuscript:

**MINOR ESSENTIAL REVISION:**

- **Abstract:** Last sentence of conclusion (T. gerstaeckeri) is not indeed a conclusion supported by this research, and should be deleted.
- **Methods:** authors assessed ECG in volunteers with a positive T. cruzi serology; could this fact have influenced the results? Were there any differences between seropositive volunteers and not volunteers regarding risk factors and ECG abnormalities? Why authors did not random seropositive subjects for the study?

**DISCRETIONARY REVISION:**

- **Discussion:**
  A) Chagas disease may affect an important proportion of young women that may potentially transmit the infection to children. This fact should be commented, taken into account the high percentage of females infected in this study.
  
  B) Chagas disease seems to be a cause of embolic stroke in a much higher proportion than previously expected. Seropositive patients may be in an increased risk, even they are asymptomatic; and awareness about this fact seems to be lower. Please see: Policy implications of the changing epidemiology of Chagas disease and stroke. Stroke. 2013 Aug;44(8):2356-60; and: Lancet Neurol. 2010 May;9(5):533-42.

**Level of interest:** An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests