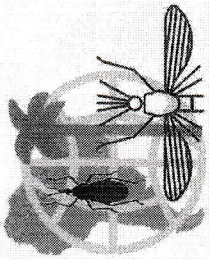


**XVIII International Congress
for Tropical Medicine and Malaria**
and
**XLVIII Congress of the
Brazilian Society of Tropical Medicine**

**XXVIII Brazilian Annual Meeting of Applied Research on Chagas Disease,
XVI Brazilian Annual Meeting of Applied Research on Leishmaniasis and
III Latin American Congress on Travel Medicine**

VOLUME I

23 to 27 September 2012 – Rio de Janeiro, Brazil – Royal Tulip Hotel



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Certificate

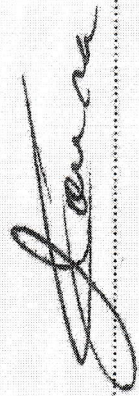
This is to certify that **Xavier,SS; Shor,LLC; Hasslocher-Moreno AM; Brasil PEAA, Saraiva RM , Sousa AS**
has attended the **XVIII International Congress for Tropical Medicine and Malaria and XLVIII
Congress of the Brazilian Society of Tropical Medicine**, held in Rio de Janeiro from September 23 to 27,
2012, as


Oral Presentation at the Workshop: Protozoan: Morbidity and epidemiology of Chagas :

Mode of Death and Degree of Myocardial Impairment in Chronic Fase of Chagas' disease

Rio de Janeiro, September 27, 2012.


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Professor Pierre Ambroise-Thomas
President of the IFTM


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Professor José Rodrigues Coura
President of the XVIII ICTMM


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Professor Cláudio Tadeu Daniel-Ribeiro
President of the Scientific Committee of the XVIII ICTMM


.....
Professor Carlos Henrique Nery Costa
President of the SBMT

special situations as hemotherapy services, reducing the processing time and cost. **Material and Methods:** For assembling the pools, 9,280 blood samples from 147 Brazilian blood banks were arranged in 10 samples/pool. DNA was extracted with Qiagen® QIAamp DNA Blood Mini Kit. Real-time PCR for genus-specific amplification targeting the gene encoding the small subunit 18S rRNA of Plasmodium was modified by reducing reagent volume and increasing number of cycles to obtain a protocol with lower cost and higher sensitivity. Reaction was prepared with 2.5 µL of gDNA, 12.5 µL of TaqMan® Universal PCR Master Mix 2x, 500nM of each primer M60 and M61, and 300nM of M62 probe marked with FAM™ and TAMRA™, assayed in duplicate on the ABI PRISM 7300. **Results:** From the 928 pools tested by Real Time PCR, 30 were positive for Plasmodium, with Cts lower than the cut-off established of 37.28. **Main Conclusions:** Our results showed that 3.2% of pools assayed by real-time PCR amplified Plasmodium gDNA, indicating an important positivity rate that contributes for transfusional malaria. Our previous study showed that the sensitivity of individually processed samples was similar to the pooled ones, demonstrating that the platform is indicated for processing a large number of blood tests. Samples from positive pools will be assayed individually using nested PCR to determine species. **Acknowledgments:** This study was supported by SUCEN/Instituto de Medicina Tropical de São Paulo (technical cooperation agreement); CAPES; CNPq; LIM 49 HCFMUSP. **E-mail:** giselledecastro@usp.br

TRYPANOSOMIASIS

CHAGAS DISEASE

Morbidity and epidemiology of Chagas disease

Chag1. Mode of Death and Degree of Myocardial Impairment in Chronic Fase of Chagas' disease

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Introduction: The aim of this study is to assess modes of death in the chronic phase of Chagas' disease (CD), correlating them to myocardial involvement levels, closer to death. **Patients and Methods:** A descriptive study of a consecutive series of 136 cases of death for which there was a possibility to determine the mode of death in the period from March 1990 to December 2009. Cases of deaths were collected from the follow up cohort of CD patients from Evandro Chagas Clinical Research Institute / Oswaldo Cruz Foundation. All patients underwent a protocol of clinical, electrocardiographic (ECG), radiological and echocardiographic at admission and followed-up. The review of the evaluation made closer to death was done through the chart review. Assessing the severity of myocardial impairment, we used the classification recommended by the Brazilian Chagas disease consensus (2005) and the left ventricle ejection fraction (LVEF) estimated in the echocardiographic. **Results:** 136 deaths were reviewed, 111 were related to chronic Chagas' disease (CCD) and 25 not related (NCCD). CCD: 63 sudden death, 39 refractory congestive heart failure (CHF) and 9 embolic encephalic vascular accidents (EVA). The mode of death changed with the cardiopathy stage ($p < 0.0001$) and the level of ventricular dysfunction ($p < 0.0001$). Sudden death was the most frequent mode of death at all stages except stage with normal ECG (only NCCD deaths) and stage D (only CHF deaths). One third of deaths caused by EVA and one third of sudden deaths occurred in patients without CHF. The average LVEF differed in the various modes of death: $23 \pm 7\%$ of the deaths by refractory CHF, $37 \pm 16\%$ for sudden deaths and $39 \pm 21\%$ for deaths due to embolic EVA ($p < 0.0001$). **Main Conclusions:** The CCC is the main cause of deaths in Chagas' disease patients. The modes of death related to CCC are sudden death, CHF and EVA, in order of frequency. The extension of myocardial involvement changed according to the mode of death and was

more severe in patients who died of CHF, compared to cases of sudden death and EVA. Sudden death was the most frequent mode of death in all ventricular dysfunction levels and in most stages. **E-mail:** sergiosallesx@gmail.com

Chag2. Chagas disease in the Brazilian Amazon: present situation at Rio Negro microregion and control perspectives

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Introduction: Chagas disease in the Brazilian Amazon can be considered an *enzootic infection* of wild animals or an *anthropozoonosis*, when humans penetrate a wild ecosystem or when wild triatomines infected with *T. cruzi* invade human dwellings. It can also be considered a *foodborne illness*, by oral transmission of juices and other infected foods. In the microregion of Rio Negro it can be considered an *occupational disease* of *piçava's* gatherers. **Materials and Methods:** Three preliminary serological surveys, to evaluate the *T. cruzi* infection, by indirect immunofluorescence was carried out in a sample of 2,254 persons, representing nearly 25% of the resident population in the town of Barcelos, in the microregion of Rio Negro, Amazon State. A specific serological study with IIF, ELISA and Western-blot was performed in 244 persons heavily exposed to triatomines bitten. A parasitological study (xenodiagnosis, PCR and hemoculture) was performed in 46 patients with positive serology and in 240 wild animals captured in the *piçava's* gatherers settlements, and also parasitological exams of 949 wild triatomines. An epidemiological, clinical, electro and echocardiogram study was carried out in about 200 patients with positive serology for *T. cruzi* infection. **Results:** The three preliminary serological surveys showed a mean prevalence for *T. cruzi* infection of 13%, but the confirmatory techniques by IFF, conventional and recombinant, ELISA and Western blot confirm only 2.8 – 5%. The specific serological study with IIF, ELISA and Western blot of 244 persons heavily exposed to triatomines bitten showed 27 (11%) with positive serology for *T. cruzi* infection. From 46 patients serological positives from all surveys 9 (19, 5%) had xenodiagnosis and PCR positives for *T. cruzi* and only one (2.17%) had positive hemoculture. From the 240 wild animals captured 54 (22, 5%) were positive for *T. cruzi* and from 949 wild triatomines (*Rhodnius brethesi*), only 19 (2%) were infected. The people seropositives for *T. cruzi* were 10 times more frequent among the *piçava's* gatherers, and among them typical and fatal cases have been described. **Conclusions:** In the microregion of Rio Negro, Chagas disease can be considered an occupational endemic disease of *piçava's* gatherers. Control measures to avoiding endemic Chagas disease in the Amazon Region should be the following: improving health education in communities, training public health officials and communities for vector and Chagas disease surveillance and training local physicians to recognize and treat acute and chronic cases of Chagas disease as soon as possible. **E-mail:** coura@ioc.fiocruz.br

Chag3. Occurrence of Chagas infection in peri-urban area population of rural and Manaus, Amazon, Brazil

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Introduction: Chagas disease is an emerging disease in the Brazilian Amazon region, where *Trypanosoma cruzi* I predominates among the acute cases of the disease and *T. cruzi* III/Z3, a population cluster from wild areas of the Amazon basin, is rarely associated with human infections. In the Amazon region, deforestation, substandard housing conditions in rural areas, and harvesting of forest products have increased contact between peri-domiciliary vectors, wild reservoirs, and humans, which also increases the number of cases of ChD that apparently originate from wild transmission in these locales. **Objective:** The purpose of this work was to estimate the infection rate of Chagas disease in its chronic form among inhabitants of peri-urban and rural areas in the city of Manaus, Amazonas. **Material and Methods:** This was a sectional and descriptive study of the local population, which willingly agreed to