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**XLVIII Congress of
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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**

Certificate

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This is to certify that Saraiva, RM; Junqueira, ACV; Costa, FAC; Boia, MN.

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 **Poster Presentation: Long-term evaluation of etiologic treatment with benznidazole in patier
with indeterminate chronic Chagas' disease**

Rio de Janeiro, September 27, 2012.

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also positive for *T. cruzi* in PCR technique. **Conclusion:** Dogs of the surveyed area are roosting *Leishmania* spp. and *T. cruzi*, being an important reservoir for these protozoosis, enabling the domestic cycle of these parasites. Once canine infection precede or have a significant relationship to human infection, it should be emphasized the possibility of spreading the disease among domestic animals in the evaluated regions, as well as starting a new focus for human disease. **E-mail:** larallyn@hotmail.com

Chagas065- Long-term evaluation of etiologic treatment with benznidazole in patients with indeterminate chronic Chagas' disease

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Introduction: The aim of this study was to assess the effect of benznidazol treatment on the electrocardiographic, serological and parasitological evolution of patients with indeterminate form of Chagas disease. **Material and Methods:** We retrospectively analyzed a group of 62 patients that were treated with benznidazol and compared their clinical findings with the findings of an untreated group (n=62) of age-matched patients with indeterminate form of Chagas disease. **Results:** The frequency of electrocardiographic alterations in the treated group was followed for 118.3 ± 61.7 months (7333.7 patients-months) and in the untreated group was followed for 144.51 ± 49 months (8959.9 patients-months). The rate of disease progression from indeterminate to the cardiac form of Chagas disease based on electrocardiographic findings was 12.9% (8/62) among treated patients and 16.1% (10/62) among untreated ($p = 0.4$). The incidence densities of this outcome was 1.09/1000 patients-months and 1.11/1000 patients-months in treated and untreated groups, respectively (relative risk = 0.98). There was no correlation between the progression to cardiac form and age, sex or place of birth. The serological titers of benznidazol treated and untreated patients were followed for 88.7 ± 49.6 months and 140.9 ± 47.8 months, respectively. The titers were converted to a linear scale, where 1 represented a 1:40 dilution and 6 a 1:1280 dilution. The serological titer reduced significantly after benznidazol treatment (4.07 before treatment vs. 2.85 post-treatment, $p < 0.001$). Such reduction was not observed among untreated persons (4.22 at the beginning of the follow-up vs. 4.11 at the end, $p = 0.503$). Despite the observed reduction of the serological titers after benznidazol treatment, the post-treatment titers tended to increase throughout the follow-up period, mainly after 100-150 months. All treated patients were submitted to xenodiagnosis, before treatment, and 32 proved positive. After treatment, xenodiagnosis remained positive in only one patient. **Main Conclusions:** We concluded that: i) among studied patients there was no relationship between etiologic treatment and electrocardiographic progression, ii) treatment with benznidazole is associated with a significant reduction in serological titers, and iii) parasitaemia seems to be suppressed soon after specific treatment. **E-mail:** alejandro.hasslocher@ipecc.fiocruz.br

Chagas066- Benznidazole evaluation in the treatment of the experimental Chagas' disease

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Introduction: Chagas' disease is caused by the flagellate parasite *Trypanosoma cruzi*. Although parasite transmission by its natural vector has mostly been controlled, Chagas' disease still deserves attention from researchers since many people remain infected and new infection routes have been described. New drugs must be tested and different diagnostic methods must be used to determinate the parasitological cure. The total parasite elimination is crucial, since its presence can trigger a new acute phase, mainly in the immunosuppressed patient. The present study proposes to evaluate the Benznidazole effectiveness and the efficacy of the diagnostic methodologies in the experimental Chagas' disease treatment. **Material and methods:** Swiss mice were infected intraperitoneally with 10^4 *T. cruzi* trypomastigotes forms and in the early acute phase the treatment was initiated with Benznidazole at 100mg/kg body weight for 90 consecutive days, by oral route. Every other day, blood samples were collected from the tail vein for

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INTRODUCTION

The aim of this study was to assess the effect of benznidazol treatment on the electrocardiographic, serological and parasitological evolution of patients with indeterminate form of Chagas' disease.

MATERIAL and METHODS

We retrospectively analyzed a group of 62 patients that were treated with benznidazol and compared their clinical findings with the findings of an untreated group (n=62), both with indeterminate form of Chagas disease.

RESULTS

Variáveis	Evolução com surgimento de alterações eletrocardiográficas (n = 18)	Manutenção na forma indeterminada (n = 106)	p-valor
Idade	35,2 ± 9,6	34,8 ± 6,7	0,82
Sexo			
Masculino, n (%)	12 (14,5)	64 (85,5)	0,61
Feminino, n (%)	6 (12,5)	42 (87,5)	
Sorologia inicial, média ± desvio padrão*	4,22 ± 1,11	4,09 ± 1,19	0,67
Naturalidade			
Minas Gerais, Bahia ou Goiás, n (%)	8 / 65 (12,3)	57 / 65 (87,7)	0,15
Pará ou Nordeste exceto Bahia, n (%)	9 / 37 (24,3)	28 / 37 (75,7)	
Rio de Janeiro, São Paulo, n (%)	0 / 12 (0)	12 / 12 (100)	
Rio Grande do Sul, Paraná, Mato Grosso do Sul ou Bolívia, n (%)	1 / 10 (10)	9 / 10 (90)	
Tratamento			
Sim	8 / 62 (12,9)	54 / 62 (87,1)	0,40
Não	10 / 62 (16,1)	52 / 62 (83,9)	

The frequency of electrocardiographic alterations in the treated group was followed for 118.3 ± 61.7 months (7333.7 patients-months) and in the untreated group was followed for 144.51 ± 49 months (8959.9 patients-months). The rate of disease progression from indeterminate to the cardiac form of Chagas disease based on electrocardiographic findings was 12.9% (8/62) among treated patients and 16.1% (10/62) among untreated (p = 0.4). The incidence densities of this outcome was 1.09/1000 patients-months and 1.11/1000 patients-months in treated and untreated groups, respectively (relative risk = 0.98). There was no correlation between the progression to cardiac form and age, sex or place of birth. The serological titers of benznidazol treated and untreated patients were followed for 88.7 ± 49.6 months and 140.9 ± 47.8 months, respectively. The titers were converted to a linear scale, where 1 represented a 1:40 dilution and 6 a 1:1280 dilution. The serological titer reduced significantly after benznidazol treatment (4.07 before treatment vs. 2.85 post-treatment, p < 0.001). Such reduction was not observed among untreated persons (4.22 at the beginning of the follow-up vs. 4.11 at the end, p = 0.503). Despite the observed reduction of the serological titers after benznidazol treatment, the post-treatment titers tended to increase throughout the follow-up period, mainly after 100-150 months. All treated patients were submitted to xenodiagnosis, before treatment, and 32 proved positive. After treatment, xenodiagnosis remained positive in only one patient.

Características	Pacientes tratados com benznidazol (n = 62)	Pacientes não tratados (n = 62)	p-valor
Sorologia inicial*	4,00 ± 1,87	4,23 ± 1,16	0,735
Idade	33,21 ± 8,4	36,51 ± 5,01	0,009
Sexo (n [%] sexo masculino)	41 (66,1)	35 (56,5)	0,269
Naturalidade			
Minas Gerais, Bahia ou Goiás, n (%)	31 (50)	34 (54,8)	0,683
Pará ou Nordeste exceto Bahia, n (%)	18 (29)	19 (30,6)	
Rio de Janeiro, São Paulo, n (%)	8 (12,9)	4 (6,5)	
Rio Grande do Sul, Paraná, Mato Grosso do Sul ou Bolívia, n (%)	5 (8,1)	5 (8,1)	
Tempo de acompanhamento (evolução eletrocardiográfica)			
Meses (média ± desvio padrão)	118,3 ± 61,7	144,5 ± 49	0,001
Pacientes-meses	7333,7	8959,9	
Tempo de acompanhamento (evolução sorológica)			
Meses (média ± desvio padrão)	88,7 ± 49,6	140,9 ± 47,8	< 0,001
Tempo de acompanhamento (evolução parasitológica, xenodiagnóstico)			
Meses (média ± desvio padrão)	14,6 ± 5,05	Não realizado**	-

Comparison of patients who developed cardiac form with those who remained with the indeterminate form of Chagas' disease,

* After conversion of serological evidence of dilution values in a linear scale in which the value 1 is a dilution of 1:80 and the value 6 is a dilution of 1:1280.

Sample characteristics of 124 patients treated and not treated with benznidazole.

CONCLUSIONS

We concluded that: **i)** among studied patients there was no relationship between etiologic treatment and electrocardiographic progression, **ii)** treatment with benznidazole is associated with a significant reduction in serological titers, and **iii)** parasitemia seems to be suppressed soon after specific treatment.