CICLO CARLOS CHAGAS DE PALESTRAS

11ª EDIÇÃO

O NOVO NORMAL PÓS-PANDEMIA: IMPACTOS NA DOENÇA DE CHAGAS

LIVRO DE RESUMOS

2023

IOC
Instituto Oswaldo Cruz

Ministério da Saúde
FIOCRUZ
Fundação Oswaldo Cruz

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O NOVO NORMAL PÓS-PANDEMIA: IMPACTOS NA DOENÇA DE CHAGAS

Programa Final

Ciclo Carlos Chagas de Palestras - 100+14: O tempo não para
O novo normal pós-pandemia: impactos na doença de Chagas

13/04: Atividade remota com transmissão para o Canal IOC do Youtube
14/04: atividade presencial – Auditório Emmanuel Dias, Pavilhão Arthur Neiva

--- 13/04/23 ---

Manhã
9:30h-11:30hs – Mesa redonda vigilância & saúde

9:30hs - 9:55hs –Cenário epidemiológico da doença de Chagas no contexto da Pandemia de covid-19 - Msc. Veruska Maia (GT-Chagas, MS Brasil)
9:55hs - 10:20hs –Vigilância e controle vetorial da doença de Chagas – Desafios após COVID19 – Dra. Claudia Mendonça (SES-CE)
10:20hs - 10:45hs –Impacto da COVID sobre a doença de Chagas e atendimento aos pacientes – Dr. Israel Molina (Hospital Universitário Vall d'Hebron, Barcelona, Espanha)
10:45hs - 11:30hs - Debate

Tarde
13:30hs – 15:00hs – Mesa redonda Novas terapias
13:30hs – 14:00hs: Vesículas extracelulares em pacientes com doença de Chagas: perspectivas e limitações - Dra. Ana Claudia Trocoli Torrecilhas (Universidade Federal de São Paulo)
14hs - 14:30hs – Debate

Intervalo

15:00hs – 16:30hs – Interação parasito – hospedeiro
15:00hs – 15:20hs: Impacto do T. cruzi no microbioma de Rhodniusprolixus - Dra. Alessandra Guarneri (Centro de Pesquisa René Rachou, FIOCRUZ)
15:20hs – 15:40hs: O metabolismo do T. cruzi na infecção - Dr. Ariel Silber (Universidade de São Paulo)
15:40hs – 16hs: Papel da endofilina A2 na infecção por T. cruzi – Dra. Norma Andrews (Universityof Maryland, EUA)
16:00hs - 16:40hs - Debate

--- 14/04 --- (Auditório, Pav. Arthur Neiva com transmissão para o Canal IOC no Youtube)

Manhã
10h - 10:15hs - Mesa de abertura: Dr. Rodrigo Correia (vice- presidente de Pesquisa e Coleções Biológicas, FIOCRUZ)
10:15h-12hs – Sessão Especial do Centro de Estudos do IOC
Doença de Chagas nas Américas: ecos da reunião da OPAS sobre a revisão estratégica da agenda regional' – Dra. Tania Araujo-Jorge (diretora, Instituto Oswaldo Cruz, FIOCRUZ)
Debatedor: Dr. Alejandro Hasslocher-Moreno (INI, FIOCRUZ), coordenador internacional da Rede Nhepacha (New Tools for the Diagnosis and Evaluation of Chagas Disease).

Tarde
13:30-14:30h–apresentação oral por jovens pesquisadores - resumos selecionados (8 minutos apresentação e 3 minutos de discussão)

14:30h- 16:30hs – Centro de Estudos do IOC
Cuidar x tratar do paciente: impactos da pandemia na assistência - Dr. Wilson Oliveira Jr (PROCAPE, Universidade de Pernambuco)
Debatedora: Dra. Fernanda Sardinha Mendes (INI, FIOCRUZ)

16:30h- 17hs –encerramento

Resumos Selecionados para Apresentação Oral

14 de abril - 13:30hs

Resumo 2: Evaluation of the influence of age and sex on Benznidazole´s pharmacokinetic profile on Chagas disease patients with the indeterminate form. Leticia B. Saavedra (Instituto Nacional de Infectologia) , Luciana F. Portela (Instituto Nacional de Infectologia) , Gabriel P. E. da Silveira (Serviço de Farmacocinética) , Douglas P. Pinto (Serviço de Farmacocinética) , Erica R. Maciel (Instituto Nacional de Infectologia) , Cintia B. Araújo (Instituto Nacional de Infectologia) , Paula S. da Silva (Instituto Nacional de Infectologia) , Aline C. de A. Silva (Serviço de Farmacocinética) , Juliana A. da Silva (Fiocruz) , Luiz Henrique C.Sangenis (Instituto Nacional de Infectologia) , Andréa R. da Costa (Instituto Nacional de Infectologia), Fernanda M.Carneiro (Instituto Nacional de Infectologia), Gilberto Marcelo S. da Silva (Instituto Nacional de Infectologia) , Alejandro M. H. Moreno (Instituto Nacional de Infectologia) ,Ana Márcia S. Fontes (Fiocruz), Marcos André V. dos Santos (Fiocruz) , Rita Estrela (Instituto Nacional de Infectologia), Roberto M. Saraiva (Instituto Nacional de Infectologia)

Resumo 18: Chagas Express Xxi: Implementation Of This Social Technology An Endemic Municipality Of Goiás, Brazil. Roberto R. Ferreira (Oswaldo Cruz Institute-Fiocruz), Elizabete Manieri Carazzai (Posse Health Services), Ana C.F.T. Souza (Posse Health Services), Rita C.M. Rocha (Oswaldo Cruz Institute- Fiocruz), Liliane R. Siriano (Goiás Health Service), Tania C. Araujo-Jorge (Oswaldo Cruz Institute-Fiocruz)

Resumo 21: Extracellular vesicules from *Trypanosoma cruzi* bloodstream trypomastigotes: morphological characterization, proteomic analysis and effect on the infection of cardiomioblasts in vitro. Luiza Dantas-Pereira (IOC, Fiocruz); Joseli Lannes-Vieira (IOC, Fiocruz); Rubem F. S. Menna-Barreto (IOC, Fiocruz)

Menções honrosas:

Resumo 13: Evaluation of the Hippo-YAP/TAZ signaling pathway role in fibrosis during infection of cardiac microtissues by *Trypanosoma cruzi*. Laura L. Coelho (LITEB/IOC/Fiocruz); Clara Monteiro Seydel (LITEB/IOC/Fiocruz); Matheus Menezes Vianna (LITEB/IOC/Fiocruz); Luciana Ribeiro Garzoni (LITEB/IOC/Fiocruz).

Resumo 15: Development of Atg3 knockout for studies of mitochondrial dynamics during *Trypanosoma cruzi* metacyclogenesis. Ana Cristina S. Bombaça (Fiocruz); Janaina F. Nascimento (USP); Vitor Ennes-Vidal (Fiocruz); Ariel M. Silber (USP); Claudia M. d'Avila (Fiocruz); Rubem F. S. Menna-Barreto (Fiocruz)

Submission area: Quimioterapia (drogas e esquemas de tratamento etiológico)

EVALUATION OF THE INFLUENCE OF AGE AND SEX ON BENZNIDAZOLE´S PHARMACOKINETIC PROFILE ON CHAGAS DISEASE PATIENTS WITH THE INDETERMINATE FORM

Leticia B. Saavedra[1], Luciana F. Portela[1], Gabriel P. E. da Silveira[2], Douglas P. Pinto[2], Erica R. Maciel[1], Cintia B. Araújo[1], Paula S. da Silva[1], Aline C. de A. Silva[2], Juliana A. da Silva[1], Luiz Henrique C.Sangenis[1], Andréa R. da Costa[1], Fernanda M. Carneiro[1], Gilberto Marcelo S. da Silva[1], Alejandro M. H. Moreno[1], Ana Márcia S. Fontes[3], Marcos André V. dos Santos[3], Rita Estrela[1], Roberto M. Saraiva[1]

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Benznidazole (BNZ) presents adverse events in 87% of the patients causing treatment discontinuation in about 30% of the cases. The scarce number of studies about BNZ`s pharmacokinetic leads to a necessary enlightenment on the subject. To characterize BNZ`s pharmacokinetic profile after administration of single or multipledoses in patients suffering from indeterminate form (IF) of Chagas disease, identifying variability factors such as age and sex. This is an unicentric, non-controlled, non-blinded study, approved by INI`s IRB. Patients with the IF aged between 18 and 70 years, of both sexes and without BNZcontraindications were selected to use BNZ 300mg/day for 60 days. Pre-dose and post-dose curve measurements to analyze pharmacokinetic were performed on the firstand 15th days of therapy. Pre-dose samples were also collected on 7th, 30th and 60th days of therapy. Plasma concentrations of BNZ were determined by liquid chromatography-mass spectrometry. Pharmacokinetic data analysis was performed using the validate Phoenix WinNonlin® 8.3 software from Certara. The studied parameters were: maximum and minimum plasmatic concentration (C_{max},C_{min}), time to reach C_{max} (T_{max}), area of concentration curve vs. time (AUC) and plasmatic half-life time ($T_{1/2}$). Pharmacokinetic data from 24 patients (age 35-70; 14 women) were studied. The single dose parameters were: $C_{máx}$=2588,85±475,08 ng/mL; $T_{máx}$=2,90±1,26 h and $AUC_{[0-6]}$=11479,81±2629,19 h*ng/mL, and the multiple dose were: $C_{máxSS}$=8208,52±1646,68 ng/mL; $T_{máx}$=2,44±1,16 h; $AUC_{[0-6]}$=43942,23±8809,47 h*ng/mL After single dose, C_{max} was 32% higher (P=0,000082) and $AUC_{[0-6]}$ was 41% higher (p=0,000123) in women. After multiple doses, no differences in pharmacokinetic parameters were found between sexes. The difference observed in single dose was related to weight variations between sexes, since when C_{max} and $AUC_{[0-6]}$ were corrected by dose normalized by weight, the sex differences were no longer significant. Regarding age, after a single dose, $AUC_{[0-6]}$ corrected by the administered dose was 14,5% higher in patients younger than 60 years compared to participants aged 60 years or older (P=0,033), and T_{max} had a decrease of 36% among the group younger than 60 years (P=0,0042). After multiple doses of BNZ, these findings didn´t repeat. After 60 days of therapy $T_{1/2}$ was 60% longer than compared after a single dosetherapy. We determined the pharmacokinetic parameters for BNZ, which showed difference between sexes and age after a single dose treatment, the sex difference being related to the dose corrected by participant weight. Chronic use of BNZ caused increase in $T_{1/2}$.

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