

EP.01 - ANALYSIS OF INTESTINAL PARASITES CAUSED BY PROTOZOA IN THE POPULATION OF CONDE, PARAÍBAOliveira Filho, A. A.^{1,2}, Fernandes, H. M. B.¹, Néris, P. L. N.^{2*}, Freitas, F. I. S.¹

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Infectious and parasitic diseases are a serious public health problem worldwide, which reaches alarming levels in many Latin American countries. Considering the scarcity of studies on these disorders in Brazilian municipalities, this study aimed to conduct a survey on intestinal parasitic infections caused by protozoa present in individuals served by the Clinical Laboratory of the town of Conde, Paraíba, during the months of January 2009 to January 2010. It was analyzed the results of 1759 fecal examinations, which were obtained by the Hoffman technique, Pons & Janer, stored in a laboratory log book, being separated by gender. The data showed that 42.07% of the sample was infected by at least one intestinal parasite and 77.3% of the patients were infected by protozoa. The most frequent parasites in the positive results were *Endolimax nana* (13.59%), *Entamoeba coli* (12.67%) and *Entamoeba histolytica* (10.46%). It was also noticed that the protozoan *Giardia lamblia* (6.46%) was more frequent in men, while *Endolimax nana* (15.25%) was more prevalent in women. Therefore, it can be concluded that the high incidence of intestinal parasitism caused by protozoa is a reality to be minimized in the population of Conde.

EP.02 – GENES INFLUENCE SEROPOSITIVITY FOR *T. CRUZI* INFECTION AND EKG MEASURES OF CHAGAS DISEASE PROGRESSIONWilliams-Blangero S.^{1*}, Correa-Oliveira R², Blangero J¹, VandeBerg J.L.¹

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We searched for genes influencing seropositivity for *T. cruzi* infection and EKG traits related to Chagas disease progression in a Brazilian population using large extended kindreds. Whole genome STR genotyping information was available for 1350 individuals. The prevalence of *T. cruzi* infection in these individuals (who were born in 1975 or earlier) was 61.2%. Using a standard threshold liability model, the heritability of *T. cruzi* infection was 0.614 ($p=4.6 \times 10^{-9}$). We observed significant evidence for polygenic genotype x sex interaction ($p<0.05$), and consequently allowed for genotype x sex interaction in our linkage analyses. We identified two significant loci influencing seropositivity for *T. cruzi* infection. The first one was localized to chromosome 2 at 27cM with a lod score of 3.40 (genome-wide $p = 0.046$). This locus showed larger effects in males (p -value for genotype x sex interaction = 0.00012). The second locus was on chromosome 15 at 23 cM (lod score = 3.37, genome-wide $p = 0.049$) and exhibited greater effects on females (genotype x sex interaction $p = 0.0019$). These loci represent the first significant evidence for specific genomic regions influencing seropositivity for *T. cruzi* infection found by unbiased genome-wide searching. We also searched for genes influencing cardiovascular parameters that differentially respond to *T. cruzi* infection. The QT interval obtained from EKG measures showed pronounced prolongation in infected individuals ($p=1.9 \times 10^{-10}$). Using a quantitative trait genotype x infection interaction model, we localized a gene influencing the QT interval on chromosome 1 at 18cM ($p=0.00045$) that showed strong evidence for differential response to *T. cruzi* infection (genotype by infection interaction $p=0.0018$). Infected individuals exhibited larger effects due to this locus than uninfected individuals. To our knowledge, this is the first strong evidence of genetically based differential response of cardiovascular parameters relevant to Chagas disease.

EP.03 - ANALYSIS OF RESTRICTION FRAGMENT LENGTH POLYMORPHISM (RFLP) OF ISOLATES OF *TRYPANOSOMA CRUZI* IN THE STATE OF AMAZONAS, BRAZIL.

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The Brazilian Amazon is considered non-endemic area for Chagas disease due to a small number of records of triatomines that invade homes and of sporadic human cases that usually occur by oral infection. This scenario makes it difficult to clarify the epidemiological situation of transmission of *Trypanosoma cruzi* in the region. This study aimed to analyze the restriction fragment length polymorphism (RFLP) of isolates of *T. cruzi* from different municipalities in the state of Amazonas. We analyzed 44 samples, 31 isolated from humans, 6 from wild animals and 7 from different species of triatomines. The samples were grown in LIT medium and DNA was extracted and amplified with the primers Tcmit-10 and Tcmit-21 generating a fragment of approximately 400bp of the gene for subunit 2 of cytochrome oxidase (COII). This product was digested with the enzyme *Alu* I and RFLP was determined in polyacrylamide gel at 4.5%. The isolates from humans, two were classified as DTU (*Discrete Typing Units*) TcI and 29 had profiles patterns compatible with bands observed in DTU TcIII or TcVI. The isolates from opossums (*Didelphis marsupialis* and *Philander opossum*) belong to TcI and 4 isolates from vectors belong to TcIII ou TcVI and 3, the TcI. The definition of the isolates from humans and triatomines belonging to more than one DTU will be made by sequencing, since the visualization of the gel bands of RFLP does not allow to differentiate DTUs TcIII and TcVI. However, with these preliminary results it is assumed that these isolates belong to TcIII, since there are no reports yet of the presence of TcVI in Amazon, which is consistent with the DTUs found in this region. Additional epidemiological and biological studies with these isolates may give subsidies to propose measures of prevention and control of Chagas disease in Amazonia.

Supported by Fundação Araucária, CNPq, PPG/UEM, CAPES, PROAP-CAPES

EP.04 – PHYSICAL THERAPY COMBINED WITH A LAXATIVE FRUIT DRINK FOR TREATMENT OF CHAGASIC MEGACOLON

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Chagasic megacolon is characterized by intestinal constipation and frequent abdominal distension. The treatment of Chagas' disease colopathy is limited to clinical management in the initial phases of the process, and for patients for whom surgery is not indicated or is not possible, anti-constipation diets are used, along with judicious administration of laxatives and enemas. The objective of this work was evaluate over time the effects of physical-therapy interventions combined with daily ingestion of a laxative fruit drink in the treatment of chagasic megacolon. In a quantitative, prospective, and comparative study, 12 patients of both sexes and with a mean age of 67 ± 12 years were clinically evaluated to receive 12 sessions of physical therapy twice a week, along with a daily fruit drink, and were evaluated for intestinal constipation before and after treatment. A significant difference (p<0.0022) was observed in the constipation scores before and after 6 weeks of intervention in 91.7% of the patients, and in 72.7% after 12 months, with reduction of laxative medications, softer stools, and increased number of bowel movements, indicating improvement. With respect to gender, age, and whether or not the patient had received surgical treatment, there was no significant difference (p>0.05) in the results of the physical-therapy treatment combined with the fruit drink. We conclude that the proposed protocol is easy to implement, safe, non-invasive, and low-cost, with the potential to be deployed in health care by providing benefits independent of gender, age, or whether the participant has undergone reconstructive surgery, improving the condition of patients with chagasic megacolon. Supported by PPG/UEM, PROAP-CAPES.

EP.05 – AUTOCHTHONOUS CHAGAS' DISEASE IN ESPÍRITO SANTO: CASE REPORTDario, M.A.¹, Fux, B.¹, Santos, C.B.², * Falqueto, A¹.¹Universidade Federal do Espírito Santo; ²Secretaria de Estado da Saúde (SESA/ES).
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Trypanosoma cruzi, the etiologic agent of Chagas' disease, is widely distributed on the American continent where 16–18 million inhabitants are infected. In Espírito Santo (ES) there is a high diversity of etiologic agents: *Cavernicola pilosa*, *Panstrongylus diasi*, *Panstrongylus geniculatus*, *Panstrongylus megistus*, *Triatoma tibiamaculata*, *Triatoma vitticeps* and *Rhodnius domesticus*. None of these species has acquired the capacity of domiciliation, but some are captured into domestic localities and transmitted to the residents. *Triatoma vitticeps* is the most important species present in ES. The objective of this work was to report a Chagas' disease case in a patient residing in Iconha localized in southern region of ES. Following the initial clinical diagnosis, the patient complaining of low fever, fatigue, edema and pruride. These symptoms appeared two weeks after she smacked a bug, and the intestinal material sprayed in her eyes. Thirty days after contamination, the patient was evaluated at the Hospital Universitário Cassiano Antonio de Moraes (HUCAM/UFES), by Indirect immunofluorescence (RIFI) and xenodiagnosis tests for Chagas' disease. The RIFI was positive (1:320) and the xenodiagnosis induced the infection in all triatomines, confirming acute phase of Chagas' disease. Benznidazole was prescribed 200 mg daily for 60 days. Three months after the treatment, serological tests were performed and the results showed non reactive Indirect Hemagglutination (HI) and indeterminate RIFI. Every six months, in a period of two years, new serological tests were performed by the same methodology, showing negative results, demonstrating possible parasitological cure. After six years, the patient returned to the hospital and complained of fatigue and recurrent chest pain. She performed the serological tests (RIFI, HI and ELISA) and all were positive for Chagas' disease. The serological tests were positive probably because of the intracellular amastigotes reactivation. Supported by UFES and Secretaria de Estado da Saúde (SESA/ES).

EP.06 – SEROLOGIC PREVALENCE OF *Trypanosoma cruzi* IN DOGS FROM THE NORTH ZONE (TEMPORAL) FROM THE DEPARTMENT OF COCHABAMBA-BOLIVIA, FROM THE YEARS 1997 AND 2007.

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Chagas disease is a major public health problem in Latin America. At present, Bolivia has the highest rate of vector and congenital transmission, and the old rural profile of the disease is changing rapidly into urban. Recent epidemiologic data indicates that all the capital cities of the 9 Bolivian departments still have new cases of Chagas disease in children under fifteen years. However, good news came from Bolivia: the Chagas control program has reduced importantly the rate of infection. This work is designed to expand research studies on the epidemiological situation of infection with *T. cruzi* in domiciliary dogs from the North (NZ) Zone "Temporal" a place with high socially, and economically situation of the Cochabamba department of Bolivia. We drawing a comparison to the years 1997 and 2007. Samples of the year 1997 indicate a result of 449 serum dog samples indicated that 64,15% are seropositive and 35,85% are seronegative. In 2007 we returned to the same place and we obtained 445 serum dogs samples, when we did the analyse of them, 6,74 % were seropositive for Chagas disease and 93,26% are seronegative with indirect hemagglutination IHA analysis Polychaco-Argentine kit, positive and negative controls provided in the kit were used with all samples. Probably, This low positivity is due to better preventive health management is now mostly housing, improving housing, the use of insecticides in good campaigns planned.

EP.07 – INFECTIVITY FOR MICE OF *TRYPANOSOMA CRUZI* ISOLATES OF DIFFERENT HOSTS FROM THE STATE OF AMAZONAS, BRAZIL

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Chagas disease is emerging in the Amazonian region of Brazil with 600 acute cases recorded. *Trypanosoma cruzi* isolates from this region exhibit genetic and biological peculiarities. Infectivity for mice of 11 *T. cruzi* isolates from the state of Amazonas was determined and compared to one isolate from the state of Parana. Eight isolates of human acute cases from the municipality of Coari, three of *Didelphis marsupialis* (Manaus) and one of chronic patient from Maringá (PR). Groups of 10 mice, males, 21-28 days, were inoculated intraperitoneally (1.05 to 17.5×10^3 blood trypomastigotes (BT)/animal). Parasitemia was assessed by fresh blood examination, blood culture and PCR. The rate of infectivity (% INF) was determined by the number of animals that displayed at least one positive test/total. The %INFs ranged from 40-100% and 0-90%, respectively, for isolates from Coari and *D. marsupialis*. Was 100% for the isolated of chronic case. The prepatent period ranged from 5.3 to 9.5 days (Coari). It was 12.8 days for the isolate of chronic case. All isolates of *D. marsupialis* showed sub-patent parasitemia. The patent period ranged from 2.2 to 9.5 days for isolates from Coari and was 19.9 days for the isolate of chronic case. The peak of parasitemia (Pmax) varied from 280-8200 BT/0.1 mL (Coari). It was 1900 BT/0.1 mL for isolate of chronic case. All isolates from acute cases showed early peaks of parasitemia (7-8^o di). For the isolate of chronic case the Pmax was late (25^o di). The mortality rates ranged from 0-13% (Coari) and 0-20% (*D. marsupialis*). It was 0% for the isolate of chronic case. The infectivity varied with both the host and with the geographical origin of the isolate. Supported by CNPq, UEM and Fundação Araucária.

EP.08 – INFECTION WITH *TRYPANOSOMA* SP. (KINETOPLASTIDA: TRYPANOSOMATIDAE) IN ARMORED CATFISH (*PTERYGOPLICHTHYS PARDALIS*) IN FREE MARKETS OF MANAUS, AMAZONAS, BRAZIL

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The trypanosomatids hemoflagellates are widely distributed in all continents, parasites from different hosts. Currently there are 140 described species of *Trypanosoma* in freshwater fish worldwide, with about 40 registered fish in natural river basins in Brazil and at least 18 recorded in catfishes. The *Pterygoplichthys pardalis*, known as the Acari-bodo is too consumed by the Amazonian population, which has gotten used to buy this fish alive, by showing a rapid degradation process after his death. Has detritivorous feeding habits, with a distribution in floodplain environments, where a very large amount of particulate organic material, formed by plants and decomposed remains of dead animals. The aim of this study was to determine the rate of infection of *Trypanosoma* sp. in armored catfish (*P. pardalis*) and describe the morphology of the flagellate. 62 live fish were purchased in street markets of Manaus, recorded, photographed, examined and made observations and external evaluation of the cap to search for ectoparasites. The blood was collected by cardiac puncture, liver and caudal to carrying out fresh tests. Regardless of positive blood smears sewn up for morphometric studies. The infection rate was 88.7% in the examination of fresh blood, confirmed by stained smears. These flagellates have cytoplasm with granules and light purple. With tapered ends, the front is located in the kinetoplast, that are round, with pink. The nucleus is usually oval and may be slightly circular and the most often occupies the entire width of the body, same color as the kinetoplast. The undulating membrane is conspicuous and in the majority of specimens presented a few undulations. Supported by: FAPEAM

EP.09 – THE EPIDEMIOLOGY OF THE ACUTE CHAGAS DISEASE IN THE STATE OF PARÁ, BRAZIL

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Chagas disease remains a highly relevant public health problem in the Amazon. The disease now advances to new regions without previous recognition of the hyperendemicity of the *T. cruzi* infections. Seasonal outbreaks of acute Chagas disease are usually detected in the months of September and October. The State of Pará Chagas Disease Program notified 351 acute cases of the disease in the last two years. The acute cases were originated from different geographic regions of the State, but a majority of cases were from the small cities in archipelago of Marajó. The epidemiological findings for patients treated at the Clinical Hospital revealed that a majority of acute symptomatic cases of Chagas disease occurred as outbreaks suggestive of infection acquisitions by the oral route. Interestingly, most acute cases were seen in people residents in the urban area, although some were from rural areas neighboring the cities. There was no age or gender preference, and no professional activity favored contamination. The gathering of specimens of triatomines inside the houses was sporadic, and triatomine colonies were not found in the intradomicile. Randomized epidemiological studies should be conducted in the region, aiming at to identifying environmental and epizootiological factors associated with constant outbreaks of acute Chagas disease in the Greater Amazon.

EP.10 – SYMPTOMATIC ACUTE CHAGAS DISEASE IN THE AMAZONIAN STATE OF PARÁ, BR. CLINIC-EPIDEMIOLOGIC STUDY OF CASES SEEN IN THE HOSPITAL GASPAR VIANNA, BELÉM, 2009

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The clinic manifestations of the acute phase Chagas disease have been reported in about 5% of cases. However, the acute illness in cases from the northern State of Para, Brazil, showed a majority of acute cases with various specific symptoms related to severe cardiomyopathy. In this study, we assessed all acute cases that were notified to the Secretary of Health of Pará during 2009. Each acute case yielded clinical histories, and clinical examinations were performed. The laboratory analysis included blood cell counts and biochemistry, and urinalysis. ECGs, chest X-rays and echocardiography were recorded. The relevant clinical findings were prolonged fever, malaise, anorexia, myalgia, headache and swelling of the face and of lower limbs. Some cases presented acute myocarditis with increased cardiac area on chest X-rays, pulmonary congestion and pericardial effusion. Leukocytosis, increased ALALT and ASALT transaminases, creatine kinase, anemia and alterations in the lipid profile were recorded. The ECGs showed atrial fibrillation, diffuse changes of repolarization, ventricular, QT prolongation. Doppler echocardiography, revealed pericardial effusions and various degrees of heart insufficiency, and blood regurgitation in the left ventricle. The variability of signs and symptoms requires long lasting field studies to determine the progress of acute phase lesions to chronic phase Chagas disease in the Greater Amazon. Funded by the FAPDF/HCFGV

EP.11 – INFECTIVITY FOR MICE OF *TRYPANOSOMA CRUZI* ISOLATES FROM THE STATE OF AMAZONAS INOCULATED BY INTRAGASTRIC ROUTE

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Experimental and field observations have demonstrated the transmission of *Trypanosoma cruzi* to man and various mammals by oral route. In the last decades, at least 600 cases of acute Chagas disease were reported in the Brazilian Amazon, most linked to oral transmission. In this study, it was determined the infectivity for mice of four *T. cruzi* isolates from the state of Amazonas. Three of human acute cases from municipalities of Coari and Santa Isabel do Rio Negro and one of *Rhodnius robustus* captured in Apuí. Groups of 20 male Swiss mice, 21-28 days, were inoculated (5.6 to 11.2 X 10³ blood trypomastigotes (BT)/animal): 10 intragastrically (IG) and 10 by intraperitoneal route (IP). Parasitemia was assessed by fresh blood examination and blood culture. The rate of infectivity (%INF) was determined by the number of animals that had at least one positive test/total X 100. The %INF ranged 30-80% in mice inoculated IG and 90-100% in those inoculated IP. The medium prepatent period was 9.8 to 11.7 days (IG group) and 3.6 to 7.1 days (IP). The medium patent period was 1.7 to 4.3 days (IG) and 5.2 to 6.3 days (IP). The medium peak of parasitemia (Pmax) varied from 1,506-14,000 BT/0.1 mL (IG) and 5,911-43,960 BT/0.1 mL (IP). The day of Pmax was later for the IG group (11° - 12° days after inoculation-di) than for the IP group (6.4° - 9° di). The mortality rate was lower for the IG group (0 - 20%) compared with IP group (0 - 40%). With the parameters analyzed we can conclude that IG infection with Amazon *T. cruzi* was less virulent for mice compared to the IP route, with the inocula used. Supported by CNPq, UEM, and Fundação Araucária.

EP.12 – INFECTING POTENTIAL, PATHOGENICITY AND GENETIC VARIABILITY OF *Trypanosoma cruzi* IN DIFFERENT MICE LINEAGES

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The *T. cruzi* (Tc) populations are grouped in six main lineages (TcI, TcII, TcIII, TcIV, TcV and TcVI). The influences of these genotypes in the evolution of experimental infections and human clinical manifestations are little studied. TcII is associated with pathogenicity but controversy exists regarding TcI pathogenicity. In this research, the molecular and biological behavior of TcI triatomine strains ALVANI, MUTUM (*Panstrongylus megistus* - Minas Gerais) and AQ1-7 (*Triatoma sordida* - Bahia) were evaluated in three mice lineages (Swiss, Balb/c and C57BL/6). Fifteen animals of each lineage were infected with 10.000 trypomastigotes from MK2 tissue culture. The parasitemia was evaluated during 30 days by microhematocrit (MH), fresh blood examination (FE), blood cultures (BC) and PCR. Animals were sacrificed after 35 days for histopathology analysis and *T. cruzi* tissue PCR (121 and 122 primers). The parasite genetic characterization by *Low Stringency Single Specific Primer* was performed to kDNA of *T. cruzi* in culture, blood and tissues. All TcI strains presented low virulence followed by a variation on the pathogenic potential detected by inflammatory process (IP) and amastigotes nests. The parasitemia, in all isolates in all animals lineages, was 100% subpatent (MH and FE). The survival rate was of 100%. MUTUM showed blood parasitism (BC+ and PCR+) and low pathogenicity (low positive rate of tissue PCR without nests). ALVANI and AQ1-7 presented low blood parasitism (only PCR+) but intense tissue parasitism (PCR+ and amastigotes nests) and pathogenicity with severe IP. All strains showed smooth and striated muscle tropism independent of mouse strains and the kDNA genetic characteristics between inoculum, culture and blood were maintained. MUTUM and AQ1-7 were genetically associated. TcI strains differences could be attributed to the polar populations associated with and without the capacity to produce lesions. These facts may explain the clinical controversies found in TcI human infections in different endemic regions. Supported by CAPES, CNPq (Universal 2008), FAPEMIG and FUNEPU.

EP.13 – CONTRIBUTION IN LABORATORY DIAGNOSIS OF CHAGAS DISEASE WHEN THE TRANSMISSION BY FOOD IN THE AMAZON AFFECTS THE STATE OF PARÁ.

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The detection of cases of chagas disease (DCh) in the Amazon is different from other regions in the country due to the investigation of suspected form of transmission from contaminated food through deposition of faeces from infected tick. In 2007 outbreaks were investigated in the state where there was an association of consumption of fresh food, especially the açai juice. From the implementation of surveillance actions at the state level, results in higher integration and structuring of the network diagnostic in Pará. The aim of this paper is to analyze the contribution from the aspect of serological reactivity in samples from municipalities in Pará sent to the Laboratory of State Reference (LACEN/PA) in the period from January 2008 to December 2009. We conducted a retrospective descriptive study by analyzing the results of serum samples from suspected cases of acute DCh. 3158 samples were examined, using standard techniques (RIFI-IgG, ELISA and HAI), considering the title reagents with samples of least 1/40 in two tests and analyzed the probable mode of infection through the records of investigation. The reagents were 166 samples (5,2%) in the period, these 25 (15%) by probable oral way, 129 (78%) ignored, 08 (4,8%), vectorial, 02 (1,2%) transfusion and 02 (1,2%) accidental. The data obtained imply that there are questions to be clarified such as: the paucity of scientific studies on the contamination of açai juice would influence the investigation; and other foods would be in the food chain and transmission of *T. cruzi* in the region, there would be concomitant pathologies. In summary, the elucidation of the mechanism of transmission is of really important for the control of the infection.

EP.14 – PREVALENCE AND PARASITEMIA OF TRYPANOSOMES FOUND IN ARMoured CATFISH

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Fish trypanosomes are transmitted by bloodsucking aquatic leeches. Natural fish trypanosomiasis is widespread with high prevalence in the wild. The objective of this study was to report the prevalence and intensity of infection of trypanosomes and leeches in armoured catfishes from Rio Pomba, MG, investigating the dynamics of natural infections caused by trypanosomes. Armoured catfishes were collected from Rio Pomba, (21°21'07"S, 43°02'49" O) Guarani City, MG, Brazil during the years 2008 - 2009. The leeches found infesting fishes were counted and removed from the body. The blood samples were obtained by cardiac puncture and analyzed for the presence of hemoparasites. The prevalence was determined by the analysis of the stained blood smears and the parasitemia was estimated counting trypanosomes in 50 fields (10 Ocular X 20 Objective). Leeches were found during all the seasons infesting armoured catfishes, located mainly in the mouth. In the winter sample the intensity of infestation reached 10 leeches per fish and in the summer it presented a low number, 1 leech per fish. The prevalence was high in armoured catfishes with trypanosomes detected in all fishes collected. The parasitemia ranged throughout the seasons, in the spring and summer the parasitemia was 1 parasite/cm² and 1.2 parasites/cm², respectively. In autumn the parasitemia was 2.3 parasites/cm² and in the winter it showed a peak of 4.5 parasites/cm². These data showed that the elevation of the parasitemia coincides with elevation of intensity of leeches. Other studies will be conducted for complementary analyses on the dynamics of infection caused by those trypanosomes.

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EP.15 – LEISHMANIASIS: SOCIAL REPRESENTATIONS ABOUT THE DISEASE AMONG TEACHERS OF PRIMARY AND SECONDARY EDUCATION FROM DIVINÓPOLIS CITY, MINAS GERAIS, BRAZIL

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Leishmaniasis is a serious public health problem in Brazil. One of the reasons for the increase of the disease's dissemination is the lack of public information and poor knowledge among health and educational professionals. This study aimed to investigate the social representations about leishmaniasis by using semi-structured interviews among science and biology teachers of the primary and secondary education system in Divinópolis, an endemic area. Out of 139 teachers eleven were randomly selected, and after 10 having been interviewed the criterion of saturation was met. The interviews were submitted to content analysis according to Bardin (1977) and revealed that teachers consider leishmaniasis of little importance. Furthermore they were never trained on this subject, confounding the disease with others such as schistosomiasis. Nine professionals associated disease transmission to mosquito bites and three considered humans as source of infection for sandflies. In relation to the parasite, one classified it as virus and another one as bacteria. The knowledge about the vector, the biological cycle and symptoms of the disease also proved to be fragmented; some professionals named the vector incorrectly and stated that the vector breeding is standing water. Two considered the reservoirs as propitious environment for the disease; eight associated these to dogs. All of them reported that there are treatment and cure for humans, although they do not know the medicine. The prevention and control were associated with: putting down dogs (5); treatment of these animals (5) or vaccination (2); vector combat (6); avoid standing water (3); treatment of patients (4), sanitation (2), information for people (7). In conclusion, the teachers' conceptions do not favor the Leishmaniasis prevention. These results will be helpful for a contextualized health education program for these professionals promoting a meaningful learning. Supported by FAPEMIG and CNPq.

EP.16 – CANINE LEISHMANIASIS: SEROPREVALENCE IN AN ENDEMIC AREA OF MINAS GERAIS

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Leishmaniasis are zoonoses with wide geographic distribution in Brazil and it is an increasing public health concern. It is known that the canine cases of the illness precede the human cases; therefore, high prevalence in these reservoirs leads to the emergence of epidemic outbreaks in many Brazilian regions. The purpose of the present work was to evaluate the seroprevalence of leishmaniasis in domestic dogs in Divinópolis city, MG. Blood samples from 151 dogs were collected in six veterinary clinics from 2008/ 2009. The blood sera were tested by ELISA and RIFI and the cells was frozen for further molecular studies. The main signs and symptoms of leishmaniasis were evaluated by a veterinary physician and the data were stored. The results demonstrated an increasing seroprevalence of canine leishmaniasis in Divinópolis city. Out of 77 dogs evaluated in 2008, 29.9% were serological positive for *Leishmania* sp. In 2009, the seroprevalence increased 6.6%, from 29.9, to 36.6%. Out of 151 dogs evaluated during this period, 50 seropositive dogs (68%) showed signs and symptoms of leishmaniasis and were classified as symptomatic. Correlation analyses showed an agreement, ranging from 0.57 to 0.69, between ELISA positive tests and the following clinical signs: dermatitis, nodules and hepatosplenomegaly, in addition to a mild correlation (0.21 - 0.43) with alopecia, conjunctivitis, loss of weight, prostration and lymphadenopathy (P>0.05). The increase of canine leishmaniasis seroprevalence observed from 2008 to 2009 demonstrated the importance to implement control and prevention measures with the health authorities of Divinópolis city, These measures are crucial for leishmaniasis to avoid spread of disease and the occurrence of human cases. Supported By FIOCRUZ, FUNEDI, CNPq.

**EP.17 – EPIDEMIOLOGICAL ASPECTS OF THE AMERICAN TEGUMENTARY
LEISHMANIASIS (ATL) IN TABATINGA AMAZONAS STATE, TRÍPLICE FRONTIER REGION: A
RETROSPECTIVE STUDY**

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The Tabatinga, southwestern of Amazon, is a region of triplice frontier with others Amazonian countries. This situation allows the migration of foreigners for the place in search of better conditions of life and differentiated health, initiating a process of deforestation for occupation of the area, thus causing a propitious environment for man infection. To characterize the epidemiological situation of the ATL, 49 human cases (77,5%♂ and ♀22,5%) notified in the data base of FVS, had been analyzed (2005-2009). The data was treated statistically (EPIINFO 3.5.1). All of the ages were grouped and the greater percentage of ATL occurrences was given in that correspondent to the biggest activity in the work (38,7%, 16 - 29 years). A total of 6% had more than 70 years. Respect to the level of patients education it showed that 53% had at least 4 to 11 years of study, 28% were illiterate or it was not informed, 15% had only one to the three years of study and 4% of them had more than 12 years studying. The patients were mainly from Tabatinga 80%, and remain of the cases distributed accordance with the origin of the cities proximity as Atalaia do Norte 10%, Santo Antonio do Iça 4%, São Paulo de Olivença, Jutai and Benjamin Constant 2%, respectively. It had predominance of deriving patients of the urban zone with 61.2%, followed of 38.8% of the agricultural zone. The most frequent occupation was farmer (37,5%). Other groups that had important prevalence had been the students and military, both with 25%. The majority of the cases was cutaneous with 97,9%, while only one case (2,1%) with mucocutaneous clinical form. The occurrence of ATL in the 62 Amazonas municipality in the last five years, Tabatinga is placed as the 26° in number of cases registered.

Supported by FAPEAM.

**EP.18 – LEISHMANIASIS: THE LEVEL OF HEALTH PROFESSIONALS KNOWLEDGE IN
ENDEMIC AREA**

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The lack of health professionals' information contributes to spread of various diseases, including leishmaniasis. Thus, this study aimed to: investigate the level of knowledge among health professionals in Divinópolis city through an epidemiological basic concept of leishmaniasis inquire. Out of 228 professionals were interviewed: 95 zoonoses agents (AZ), 83 community health agents (CHA), 18 doctors, 17 nurses, 8 dentists and 7 veterinarians. Analyses were performed using the SAS program, which showed the highest individual average accuracy in veterinarians (8.3) and physicians (8.1). The averages in these groups were higher than in CHA (6.7). We observed doubts related to preventive measures (42.5% error), clinical manifestations (25.9%), transmission (20.18%) and popular names of the disease (20.61%), (the last three showed p<0.05). The affirmative "Cover the water containers and do not keep water pools" was a preventive measure showing the best answer for CHA (21.7%), dentists (50%), nurses (43.8%), physicians (38.9%) and veterinarians (28.6%). As for the forms of the disease, the response "symptomatic and asymptomatic" was 7.4% and 20.5% respectively, the responses of AZ and ACS, while 12.5% of dentists responded forms "classical and hemorrhagic". The transmission was answered incorrectly by the dentists (12.5%), CHA (10.8%) and physicians (11.1%) using the affirmative "the disease is transmitted by the bite of *Aedes aegypti* vector". Another incorrect affirmative answered by AZ (8.42%), CHA (20.48%), dentists and nurses (12.5%) and vets (28.57%) was: "The control of leishmaniasis is based in dogs vaccination, treatment of patients and elimination of standing water". The conceptual gaps are evident, supporting the necessity to better prepare health professionals and increase the information about leishmaniasis. Supported by: FIOCRUZ and FUNEDI.

EP.19 – USE OF HUMAN BIOPSIES FROM CUTANEOUS LEISHMANIASIS LESIONS FOR PCR DIAGNOSIS: COMPARISON WITH CLASSICAL LABORATORY METHODS.

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The diagnosis of cutaneous leishmaniasis (CT) is time consuming, and do not discriminate the leishmania species implicate in the pathological process, one of the actual clinical questions for directing a better therapy. The technique of polymerase chain reaction (PCR) using specific primers (as the ones direct to kDNA) has been reported as a useful tool for CT diagnosis. Here we present a pilot study comparing three well known methods for CT diagnosing: search of amastigotes in a stained-slide, parasites *in vitro* isolation and kDNA-PCR. This pilot study is part of a project where PCR amplifications with five different and prospective primers will be compared aiming at a specie-specific CT diagnosis. Biopsies were collected from patients presenting typical clinical manifestations at the leishmaniasis ambulatory of the IIER, São Paulo, Brazil. Slides were made with biopsy imprinting, stained and microscope examined. The remaining patient biopsy was transported to IMT-USP, imbedded in antibiotic solution, then was sliced for: DNA extraction and parasite isolation by culture media incubation. After DNA extraction, DNA samples were PCR amplified with kDNA primers. From the 52 patients analyzed, 39 (75%) were positive at parasitological examination, and 47 (90,38%) by kDNA PCR. All samples positive for parasitological examination were positive for PCR. As expected, the kDNA-PCR was able to confirm the disease in patients not positive by others methods, demonstrating the better sensibility and PCR successful from human biopsies. Previous comparison among kDNA PCR and techniques of parasite isolation shown 90,38% positivity for PCR (47 patients), against 29,82% by both isolation methods (only 17 samples). The PCR was easier to execute, more efficient and faster than culture of parasites from human biopsy. The data demonstrated that kDNA-PCR technique could be applied as an alternative laboratory method, and must be validated as a specific tool for CT diagnosis. Supported by CNPQ and LIM48-FMUSP.

EP.20 – EVALUATION OF PCR TECHNIQUE FOR THE DIAGNOSIS OF CANINE VISCERAL LEISHMANIASIS IN DIFFERENT TISSUES OF SEROPOSITIVE DOGS

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The classical diagnosis of canine visceral leishmaniasis (CVL) basically consists in the isolation of parasite *in vitro*, its identification by microscopic analysis and/or serological tests. It is possible to infer that these methods are difficult to be implemented, time-consuming and present low level of specificity when compared to diagnosis of related parasitic diseases. With the development of molecular methods such as Polymerase Chain Reaction (PCR), the diagnosis of CVL became more accurate. In order to improve the efficacy of this reaction, we analyzed four different tissues samples from dogs with CVL aiming at the highest sensibility after PCR amplification using specific DNA primers directed from the minicircle kinetoplast DNA (kDNA). We compare samples collected from tissues such as blood, spleen, lymphnode and intact skin of 26 seropositive dogs from the Serviço de Vigilância Epidemiológica of Embu das Artes (located on São Paulo boundary). Afterwards, PCR results were compared to the ones stemmed from serology test, *in vitro* parasite isolation and stained-slide analysis. Previous analysis shown spleen samples as the more appropriate tissue to be used, since 96% confirmed the parasitological diagnosis (23 positive and 2 negative), while intact skin, lymphnode and blood samples shown respectively 92%, 88%, 80% of concordant results. Interestingly, at least 2 dogs from the 26 diagnosed by serology as CVL positive, presented here, parasitological and PCR test negative, suggesting that both dogs could be kept alive. Besides spleen samples presented the best results, we are working towards to use a less invasive sample (as blood) in the final diagnosis. In addition, a more specific primer, capable to discriminate the leishmania species by PCR analysis, must be developed. Supported by: CNPq, and LIM-48, FMUSP.

EP.21 – EVALUATION OF PARASITE RECOMBINANT PROTEIN AS ANTIGENS FOR CUTANEOUS LEISHMANIASIS SERODIAGNOSIS.

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Serological tests with crude *Leishmania* antigens are important tool for the diagnosis of leishmania infection. However, crude *Leishmania* antigens despite being very sensitive some of the antigens exhibit cross-reacting epitopes shared by other pathogens and not always present reproductive results. The aim of this study is to develop diagnosis of Tegument Leishmaniasis using some parasite recombinants antigens. In this study ELISAS were performed using a series of intracellular leishmania recombinant proteins to screening antigenic proteins for Cutaneous Leishmaniasis (CL) and Mucosal Leishmaniasis (ML) patients' serum. To identify the effectiveness of the recombinant proteins we used ROC curves and correlation analysis to select possible optimal antigens and to discard crude *Leishmania* antigens. In the first series of experiments, HSP70 and nucleosomais histones recombinant proteins were selected in order to combine good sensitivity and/or specificity. In further experiments we identified the best effectiveness of HSP70 protein and HSP70 plus H3 for ML and CL patients' serum respectively. In the last step of preliminary experiments, using sera from patients with different responses to anti-leishmania IgG, we observed that some proteins were more specific for different ranges of antibody titers. Ours results show the high antigenicity of some *Leishmania* recombinant proteins, suggesting the possibility of using recombinant proteins to probe for Tegument Leishmaniasis serodiagnosis. Supported by CNPq, FIOCRUZ and CYTED.

EP.22 – FIELD RANDOMIZED DOUBLE-BLIND TRIAL TO EVALUATE THE EFFICACY OF A VACCINE AGAINST CANINE VISCERAL LEISHMANIASIS IN PORTEIRINHA MUNICIPALITY, SOUTH-EASTERN BRAZIL: I - PREVALENCE OF BASELINE OF ASSAY, 2008.

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Brazil is an endemic country for zoonotic visceral leishmaniasis (ZVL) and that regularly conducts prophylactics and epidemiologic control programs that involving treatment of human cases, insect vector control and the removal of seropositive infected dogs. Dogs have a fundamental role as much in that urbanization as in the maintenance of the disease in urban or rural areas. In the urban and rural areas of municipal of Porteirinha, a city near of Montes Claros, were accomplished a survey to estimate the prevalence of Canine Visceral Leishmaniasis (CVL). The serology was accomplished using eluate of dried blood in filter paper, confirmed by serum blood of the negative samples. Both were processed by Enzyme Linked Immunosorbent Assay – ELISA and Immunofluorescence antibody test - IFAT. Blood samples were collected of 2,629 dogs distributed in all 14 urban areas (2,015 dogs) and six of 11 rural districts (614 dogs). The prevalence of CVL were 20.6% (9.1% - 55.3%) and 73.3% (35.9% - 92.8%) in the urban and rural areas, respectively. The prevalence gray zone values of ELISA were 9.4% (5.7% - 25.0%) and 1.3% (0.0% - 4.7%) in the urban and rural areas, respectively. After serologic survey, a sample of 865 negative dogs by ELISA and IFAT were selected to receive three doses and one booster of Leish-Tec® vaccine. In highest infection force areas 150 negative, pre-vaccinated beagle dogs were domiciled for serve as sentinels' dogs. In function of high prevalence, Porteirinha was considered as an active high infection transmission area, being appropriate for follow-up of dogs in a field assay to evaluate the Leish-Tec®. Supported by Hertape Calier Saúde Animal S.A.

EP.23 – A PROTEOMIC APPROACH TO THE “RECOGNOME” OF THE *PLASMODIUM FALCIPARUM* INFECTED RED BLOOD CELL SURFACE

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After multiple *Plasmodium falciparum* infections, some individuals become asymptomatic carriers, protected from clinical malaria. While cellular immunity is required, antibodies that recognize proteins localized on the merozoite and at the red blood cell surface seem to play a major role to control the infection but the identity of many antigens is still elusive. In the Amazon, the repertoires of variant antigens in *P. falciparum* populations is very low, offering the opportunity to investigate the antigens involved in protection without having to sample a large number of parasite isolates. Herein, we apply a proteomics strategy to identify unknown antigens differentially recognized by the antibodies present in the serum of symptomatic (“unprotected”) and asymptomatic (“protected”) patients. Erythrocyte ghosts infected with a *P. falciparum* Amazon isolate were fractionated from the parasites and the proteins extracted with SDS page buffer. After 1D electrophoresis separation, western blotting was applied to check the presence of antibodies in the serum of symptomatic and asymptomatic patients from the Amazon. Neither sera from symptomatic or asymptomatic patients reacted with uninfected ghost preparations. Sera from patent malaria patients poorly reacted with infected erythrocyte proteins, while oligosymptomatic patients – without fever – strongly reacted with at least 9 proteins of molecular weights above 80 kDa. The reactivity of sera varied and the strongest reaction was observed in sera from oligosymptomatic carriers. The reaction of asymptomatic and oligosymptomatic sera also varied in dependence of the isolate analyzed. Several protein species were differentially recognized in different isolates, however, the observed protein sizes do not coincide with the sizes of expected major variant antigens such as RIFIN, STEVOR, or PfEMP1. Present efforts are now guided to mass spectrometry identification of the identified proteins. Supported by PRONEX, FAPESP and CNPq.

EP.24 – TOXOPLASMOSIS: EPIDEMIOLOGIC ASPECTS AND SEROPREVALENCE OF *T. GONDII* IN PREGNANT WOMEN AT THE HEALTH CARE CENTER (SUS) IN DIVINÓPOLIS CITY, MG, BRAZIL

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Toxoplasmosis is a zoonotic disease of worldwide distribution. Infection with *Toxoplasma gondii* can cause several clinical syndromes including encephalitis, chorioretinitis, congenital infection and neonatal mortality. In pregnant women can develop fatal disease. The objective of this work was to evaluate the prevalence of toxoplasmosis by serological screening in pregnant women at the Municipal Health Care Center from October 2007 to September 2008 in Divinópolis city. The quantitative inquiry provided information about toxoplasmosis infection in 200 pregnant women and 1823 samples were analyzed. The results showed that 49% and 3.4% were positive for IgG and IgM, respectively. We observed an increase number of acute toxoplasmosis in pregnant women from 25 - 30 years old. Only 4.16% from 432 women showed IgM positive. A comparative study showed an irregular distribution from 11 regions ($p < 0.01$). However, we observed a significant difference between the total numbers of pregnant women in each region. The results unfortunately demonstrated that 93% of pregnant unknown about toxoplasmosis, 24% had contact with the parasite and none of them showed acute form. We observed the correlation ($p = 0.0455$) of IgG positive and presence of animal. Some characteristics increase the risk of toxoplasmosis transmission: presence of rodents and cats, contact with soil and mainly by ingesting tissue cysts in raw or undercooked meat. Moreover, low level of acknowledgments can contribute to maintenance the disease. Therefore, preventive measures may reduce the risk of primary infection during pregnancy and control the increase number of toxoplasmosis cases. Such data are essential to elucidate the relative importance of the various sources of infection for humans, to control disease, and to prevent reduction in quality of human life caused by this parasite. Supported by FUNEDI, FIOCRUZ and FAPEMIG.

EP.25 – THE KNOWLEDGE OF PROFESSIONALS IN BASICS HEALTH UNITS ABOUT PREVENTIVE ACTIONS OF TOXOPLASMOSIS IN PREGNANT WOMEN, MARINGÁ, PARANÁ, BRAZIL

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Toxoplasmosis can be transmitted to humans by ingestion of cystis/oocysts present, respectively, in tissues of hosts that serve as food and in water, fruits and vegetables contaminated, in addition to tachyzoites on congenital way. This study evaluated the knowledges of professionals of health belonging to basic Health Units of Maringá (BHU), in relation with control of toxoplasmosis in pregnant women. A questionnaire valid was administered to health professionals who work with pregnant women on 21 from 26 BHU who exists, containing dates about contamination sources and prevention in pregnant women seronegatives. After statistical calculating the sample (expected frequency of 50%, confidence level of 95%) From 379 professionals were interviewed 214 (72/118 doctors, 25/68 nurses and 117/193 technicals/nurse assistants). The faeces of young cat and their presence were considered important sources of transmission for 42,2% and 29,8% of doctors, 56% and 32% of nurses and 68,7% e 47,3% of technicals/nurse, respectively. The consumption vegetables raws can be important source according 32,2% doctors, 60% nurses and 50,4% technicals/nurse. The ingestion of fresh sousages was considered source according only 17,4% of doctors, 16% of nurses and 18,3% of technicals/nurse, as well as the ingestion of beef, pork, lamb or chicken raw meat or undercooked to 22,3%, 12,4%, 14,9%, 2,5% of doctors, 40%, 32%, 32%, 28% of nurses and 25,9%, 27,5%, 30,5%, 13,7% of technicals/nurse, respectively. Were considered as important preventive actions the hands washing/surfaces of boards/knives after handling raw meats for 44,6% of doctors, 56% of nurses and 58% of technicals/nurse; the hands washing after handling soil/sand and avoid the ingestion of unpasteurizing milk for 47,1%, 22,3% of doctors, 76%, 32% of nurses and 68,7%, 41,2% of technicals/nurse, respectively. Is necessary the regular realization of workshops for these three professional classes, because exist an expressive lack of knowledge about sources of contamination and actions of prevention. Financial support: Araucária Foundation.

EP.26 – NOTIFICATION OF ANTI-TOXOPLASMA GONDII IGM ANTIBODIES CASES THE EPIDEMIC SURVEILLANCE OBTAINED OF PREGNANT WOMEN IN THE PERIOD OF 2007-2009

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The parasitic apicomplexa obligate *Toxoplasma gondii* induce toxoplasmosis a disease that affects millions of people in the world. The infection occurs by ingestion of oocysts from water or food contaminated excreted in faeces of felines or ingestion of undercooked meat containing cysts. Most of infected people don't present symptoms, but some patients have only lymphonodular febrile acute syndrome or chronic retinochoroiditis. In certain groups induce severe disease, as congenital toxoplasmosis in pregnant women with fetal complications and toxoplasmic encephalitis in immune-deficient patients. Several laboratory methods are used for toxoplasmosis detection, mainly serology. In this study we investigated notified cases of positive IgM antibodies the epidemic surveillance in the period of 2007-2009 obtained of pregnant women with 17 and 43 years old during prenatal care accomplished by public health system. The serologic diagnosis was established by enzyme-linked immunosorbent assay (ELISA) and avidity test according to instructions at the Municipal Laboratory of Cascavel, Paraná. The annual serology profile was determined by frequency of anti-*Toxoplasma gondii* IgG, IgM antibodies and avidity of IgG where during this period were notified 58 cases in 2007, 31 cases in 2008 and 9 cases in 2009. The prevalence in 2007 was: 49 IgG and IgM positives cases (84,48%) where 13 (26,53%) accomplished IgG avidity assay; 6 IgG positive and IgM inconclusive cases (10,34%) where 3 with avidity assay (50%); 3 IgG negative and IgM positive cases (5,18%) where 1 accomplished IgG avidity assay (33,33%). The prevalence in 2008 was: 25 IgG and IgM positives cases (80,65%) where 22 (88%) accomplished IgG avidity assay; 6 IgG positive and IgM inconclusive cases (19,35%) where all patients with avidity assay (100%). In 2009 the prevalence was: 9 IgG and IgM positive cases where all accomplished IgG avidity assay (100%). The epidemic surveillance is indispensable to monitoring the IgM positive cases with evidence acute infection and risk of fetal damage. It was observed that in the last 3 years the municipal diagnosis centre incorporated in the routine the avidity test to discriminate infection recent and last reducing congenital toxoplasmosis and this proceeding came to improve the toxoplasmosis diagnosis in Cascavel pregnant women. Financial support: LAP-UNIOESTE-PR.

EP.27 – NOTIFIED CASES OF ANTI-*TOXOPLASMA GONDII* IGM ANTIBODIES IN SERA FROM PREGNANT WOMEN IN THE PERIOD OF 2006-2008

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Toxoplasmosis is a worldwide protozoan infection who affects 30% of the human population. In most of the cases is non-symptomatic, but the protozoan obligate parasite *Toxoplasma gondii* induce severe fetal disease, when infected during pregnancy for the first time, causing acute infection. In this case their surveillance is mandatory during prenatal care, usually by serology, especially uninfected women at risk of contracting the disease must be followed by monthly serology, for therapy of seroconverted reducing fetal lesions. For this purpose several assays are used as ELISA and others in large centers and smaller cities, but the diagnosis became difficult due high sensibility of commercial assays. In our study we investigated only notified cases of positive IgM antibodies the epidemic surveillance in the period of 2006-2008 obtained of pregnant women during prenatal care. These pregnant women are assisted in UBS's (Basic Units of Health) of public health system and the serologic diagnosis was established by enzyme-linked immunosorbent assay (ELISA) according to instructions, at the Municipal Laboratory of Cascavel, Paraná. Most of the pregnant women had among 19 and 29 years old (60,46%). According their anti-*T.gondii* serology 86 cases were notified and the frequency of anti-*Toxoplasma gondii* IgG and IgM antibodies in sera samples from these pregnant women were: 75 (87,21%) IgG and IgM positive; 1 (1,16%) IgM negative and 10 (11,63%) IgG negative; 10 (11,63%) IgM inconclusive and 1 (1,16%) IgG inconclusive. The sera-prevalence showed that the presence of 10 negatives anti- *T. gondii* IgG antibodies cases e 10 inconclusives anti-*T. gondii* IgM antibodies cases in the gestacional period can had resulted in false negatives affecting the medical conduct and adequate treatment. The careful search of anti-*Toxoplasma gondii* IgG and IgM performed commercial assays and also avidity test must be established for improvement in the congenital toxoplasmosis diagnosis in this diagnosis centre. Financial support: LAP-UNIOESTE-PR.

EP.28 – OCCURRENCE OF *Giardia sp* IN HUMANS AND ANIMALS IN THE MUNICIPALITY OF ANGULO, PARANA STATE, BRAZIL

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Giardia intestinalis, also known as *G. lamblia* and *G. duodenalis* is found in several species of mammals, including humans. This parasite causes giardiasis, infection with or without symptoms like diarrhea, abdominal pain, bloating and malabsorption. Due to the number of giardiasis cases detected in the last months by Municipal Health Department of the Angulo, Parana/Brazil, this study aimed to verify and confirm the occurrence of *Giardia* in humans and animals in this municipality. Stool samples were collected from March to abril/2010 of 134 individuals (adults and children from day care center (67), from municipality (30) and state (37) schools, including family members of positive cases) and four dogs. The individuals interviewed were aged between 2 and 56 years, 77 females and 57 males. Analysis of fecal material was performed using Lutz and Faust methods. Twenty-three (17.2%) samples obtained from humans were positive for *Giardia*. Of these, 60.9% were from the day care center, 13.1% of the municipality school and 26.0% of the state school. Of the dog samples, two (50%) were positive. Total positivity in humans is close to the rate observed in Brazil (20-30%), but the individuals of day care center showed positive results in high percentage. The age and the hygienic and sanitary conditions may be the determining factors for this high rate. Among infected individuals had a school food server of municipality school with high positivity, which is a risk factor for the students. The positivity of animals can also be considered a risk factor, because the homes of positive dogs had positive individuals. To investigate further the dynamics of transmission of this parasite between humans and animals and control infection greater number of samples will be analyzed and typed by molecular markers and etiologic treatment and educational activities will be proposed.

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EP.29 – OCCURRENCE OF *BLASTOCYSTIS SP* IN HUMANS AND ANIMALS OF THE MUNICIPALITY OF ANGULO, PARANA, BRAZIL

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Blastocystis sp is a single-celled protozoan belonging to the Chromista Kingdom, one of the parasites most found in the intestinal tract of animals, including humans. Can be found in the feces in diverse forms, being the most common the cystic. Little is known about this parasite, which has aroused interest in detecting it and study it. The blastocystosis is influenced by age and immune status of the host, often occur in children and immunocompromised individuals who may or no produce clinical manifestations. Like other intestinal parasites, it is believed that infection by *Blastocystis sp* occurs through fecal-oral route, by water, vegetables and animals. As a result of giardiasis cases detected by the Health Department of city of Angulo/PR, especially in children, we have proposed in this work verify the occurrence of *Blastocystis sp* in school children, their families and dogs from peridomestic from this municipality. One hundred and thirty-eight fecal samples were collected from march to abril/2010, being 134 from humans and 4 from dogs. The ages of patients ranged between 2 and 67 years, being 77 females and 57 males. The samples were examined using saline wet mount, Lutz and Faust. Thirteen (9.7%) samples from humans and one (25%) from dog were positive for *Blastocystis sp*. In the house where was the positive dog also had a patient positive for this parasite, suggesting the involvement of this animal in the transmission chain. In this study, positive results for humans were lower than that observed in other studies conducted in the state of Parana (18-28%). However, larger number of samples will be analyzed by giving high attention to the diagnosis of *Blastocystis sp*, as well as to study the transmission dynamics of this parasite between humans and animals, since it is present in several hosts and associated with poor hygiene.

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