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Seroepidemiology of *Toxoplasma gondii* in Workers of Slaughterhouse in Zapopan, JaliscoM.L. Galván-Ramírez^{1,*}, C.M. Flores Orozco², J.L. Soto Mancilla³¹ *Laboratory of Neurophysiology, CUCS, University of Guadalajara, Guadalajara, Jalisco, Mexico*² *Hospital of Mexican Institute of Social Security, Ocotlan, Jalisco, Mexico*³ *Chief of pediatric neurosurgery Hospital Civil Fray Antonio Alcalde, Guadalajara, Jalisco, Mexico*

Background: *Toxoplasma gondii* was discovered by Nicolle and Manceaux in 1908, and it is the causal agent of human and animal toxoplasmosis. Slaughterhouse workers can acquire the infection inadvertently through wounds when they handle raw meat contaminated with *Toxoplasma gondii*. In Mexico there is no previous study of slaughterhouse workers; The aim of this study was to find the prevalence of anti-*Toxoplasma* antibodies in these workers and to evaluate risk factors.

Methods: IgG antibodies were identified through the ELISA immunoassay (Biokit) in 145 workers of the Municipal Slaughterhouse in Zapopan, Jalisco, Mexico.

Results: The prevalence of anti-*Toxoplasma* IgG antibodies was found in 104 (72%). The antibody levels were positively related to the time spent working in the slaughterhouse. The data analysis showed no statistically significant difference in the prevalence of anti-*Toxoplasma* antibodies when we compare other risk factors such as the habit of eating raw meat, consuming unwashed vegetables, or having cats, for which we consider the principal risk factor is working in the slaughterhouse and being in contact with raw meat contaminated by *T. gondii*.

Conclusion: The prevalence of anti-*Toxoplasma* IgG antibodies was greater than that found in other study populations in Mexico, suggesting a considerable occupational risk in slaughterhouse workers.

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Analysis of PGF2 α Synthase in Old and New World Species of LeishmaniaJ. Majanja^{1,*}, B.K. Kubata²¹ *USAMRU-K, Nairobi, Kenya*² *BECA Secretariat, International Livestock Research Institute, Nairobi, Kenya*

Background: Leishmaniasis is characterized by an increase in prostaglandin (PG) levels in the host, which accounts for some of the symptoms of the disease. The molecular mechanisms for the up-regulation of PGs during infection are poorly understood. Identification of the enzymes which catalyze the production of PGs pro-

Methods: To investigate the distribution of Prostaglandin F2 α (PGF2 α) synthase in Leishmania, isolates of *L. major*, *L. donovani*, and *L. tropica* (Old World species) and *L. amazonensis*, *L. braziliensis*, *L. mexicana*, and *L. chagasi* (New World species) were cultured in vitro. Promastigotes were harvested by centrifugation, washed with Phosphate buffered saline and genomic DNA (gDNA) extracted. The PGF2 α synthase gene was amplified using LmPGFS gene specific primers. 25 μ g of total protein was extracted from each species, analyzed on 13% SDS-PAGE gels, and transferred onto an Immun-Blot PVDF membrane

Results: We detected the PGF2 α synthase gene in the Old World species (855 bp) but failed to detect it in any of the New World species except for a 2 Kb fragment corresponding to *L. braziliensis*. The Western Blot analysis detected the PGF2 α synthase enzyme exclusively in the Old World strains.

Conclusion: The PGF2 α synthase gene was only detected in one of the New World species, and none expressed the synthase enzyme even though most species of New World Leishmania retain the ability to synthesize PGF2 α . Evidently, different genes and enzyme systems have evolved to synthesize PGF2 α in the Old and New World species. This divergent evolution of the synthase genes in disparate geographical locations may suggest an important role for PGF2 α in differing Leishmania vector compatibility between the Old and New Worlds.

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Diarrhoeagenic Protozoan Parasites in Rural Persons and Links to HIV Infection and Drinking Water SourcesS. Zinyowera^{1,*}, V. Ruhanya¹, C. Berejena¹, N. Midzi², M. Mapingure¹, T. Mduluza¹, P. Nziramasanga¹¹ *University of Zimbabwe, Harare, Zimbabwe*² *National Institute of Health of Health Research, Harare, Zimbabwe*

Diarrhoea accounts for most of the global morbidity and mortality. It is mostly waterborne and causes an estimated 2.2 million deaths yearly. Ninety percent (90%) of HIV/AIDS patients in developing countries suffer from episodic diarrhoea.

This study enrolled 113 subjects who volunteered in a rural community in Zimbabwe. Thirty-four (30%) were males, 79(70%) were females whose ages ranged from 2–89 years. HIV counseling and testing was done. Stool samples were collected from 104 subjects as well as 1 litre water samples from their drinking water sources. Examinations for parasitic infections were done on all samples using the standard parasitology operating procedures for processing samples.

Methods used were wet preparations, formal ether concentration method, gomori/trichrome staining and the cold Ziehl Neelson staining. The same methods as described above were also done for water samples, except the formal ether method was replaced by the zinc sulphate technique.

Twenty-nine (25.7%) of the study subjects were HIV positive and 84 (74.3%) were negative by 2 rapid serology tests.