

Abstracts of the 9th European Congress on Tropical Medicine and International Health

RESULTS Tissue cyst of *T. gondii* was detected by bioassay in the brain of three out of the 203 associated samples (one FR and one caged chicken) by peritoneal inoculation (1%). Seropositivity for *T. gondii* antibody was 6.1% (12/196). Positive cases were as follow: 6 FR hens, one caged chicken and five roosters. No positive cases were found in the examined turkeys.

CONCLUSION This study indicates that, both free-range and caged chickens may have similar risk of infection of *T. gondii* and can transmit the parasite to humans.

KEYWORD *Toxoplasma gondii*, prevalence, brain, IHA, mice, chicken, turkey.

DISCLOSURE Nothing to disclose.

PS2.253**Seroprevalence of toxoplasmosis in blood donors of Hamadan Transfusion Center in 2013**

M. Fallah¹, M. Gholami², A. Naghsood¹, N. Fallah³ and A. Mohammadi⁴

¹Department of Parasitology and Mycology, Hamadan University of Medical Sciences, Hamadan, Iran; ²Hamadan University of Medical Sciences, Hamadan, Iran; ³Hamadan University of Medical Sciences and Health Services, Hamadan, Iran; ⁴Hamadan Blood Infusion Center, Hamadan, Iran

INTRODUCTION AND OBJECTIVE Toxoplasmosis is worldwide in distribution and this parasitic infection is one of the most common opportunistic infections in the immunodeficient patients that caused abortion and congenital complications if pregnant women infected to acute infection. The main route of infection is contact with an infected cat or consuming under-cooked meat. Because the presence of parasite in the all body fluids, it is probable that transfusion during acute infection could transmit the parasite. The aim of this study was determining the IgM and IgG antibodies' titer in the Hamadan blood donors and its relation to some epidemiological risk factors.

METHODS In a cross-sectional study, a total of 540 blood specimens were taken randomly from healthy blood donors in the Hamadan Blood Transfusion Center. All samples examined by ELISA method for IgG and IgM antibodies. The results analyzed in relation to epidemiological factors such as age, gender, occupation and some *Toxoplasma* infection risk factors.

RESULTS About 518 participants in this study was male, others were female. 294 (54.4%) were positive for IgG antibody and 10 (1.9%) were positive for IgM antibody. There was no significant relationship between seropositivity and *Toxoplasma* infection's risk factor.

CONCLUSION Because the screening dose not perform on the blood donors in Hamadan; according to results of this study, *Toxoplasma* infection in blood donors of Hamadan is relatively high and, the rate of IgM antibody could considered for screening of this population.

KEYWORDS Toxoplasmosis, blood donors, ELISA, IgG, IgM.

DISCLOSURE Nothing to disclose.

PS2.254**Evaluation of *Toxoplasma gondii* soluble, whole and excretory/secretary antigens for detection of toxoplasmosis by ELISA test**

S. Shojaee, S. Pishkari, H. Keshavarz, M. Salimi and M. Mohebbali
Tehran University of Medical Sciences, Tehran, Iran

INTRODUCTION The present study performed to compare the soluble, whole and excretory/secretary antigens of *Toxoplasma gondii* (RH strain) in diagnosis of toxoplasmosis by ELISA method.

METHODS Tachyzoites of *Toxoplasma* were injected in intra-peritoneal cavity of BALB/c mice, and after 4 days tachyzoites were harvested by peritoneal washing of the mice. For soluble antigen, exudates centrifuged and sediment sonicated and then centrifuged at 4°C, 1 h, supernatant collected and density of protein determined by Bradford method. For whole antigen after collecting, washing and centrifuging of peritoneal fluid, the tachyzoites sediment was counted. In excretory/secretary antigen 1.5 × tachyzoites were transferred in 1 ml tube of saline and incubated under mild agitation and after centrifuging supernatant was collected and protein density determined by Bradford method. Afterwards, the checker board method was performed for prepared antigens and then 176 human serum samples were evaluated for *T. gondii* IgG antibody with prepared antigens, and finally serum samples were evaluated by commercial kit (Trinity,USA) which was considered as gold standard method.

RESULTS In this study sensitivity and specificity of prepared antigens was compared with those of commercial kits in ELISA. Sensitivity and specificity of soluble antigen were 91.4% and 74.5%, in whole antigen these parameters were 77.1% and 77.3% and in excretory/secretary antigen, 28.5% and 74.5%.
CONCLUSION Soluble antigen has a high level of sensitivity and specificity for ELISA and the results were close to those of commercial kits (Trinity,USA).

DISCLOSURE Nothing to disclose.

PS2.255**Applications and limitations of Centers for Disease Control and Prevention miniature light traps for measuring biting densities of African malaria vector populations: a pooled analysis of 13 comparisons with human landing catches**

O. J. T. Briët^{1,2}, B. J. Huho^{1,2,3}, J. E. Gimig^{4,5}, N. Bayoh^{4,6}, A. Seyoum⁷,

C. H. Sikaala^{7,8}, N. Govella³, D. A. Diallo⁹, S. Abdullah³, T. A. Smith^{1,2} and

G. F. Killeen^{3,7}

¹EPH, Swiss TPH, Basel, Switzerland; ²University of Basel, Basel, Switzerland; ³Ifakara Health Institute, Ifakara, Tanzania; ⁴Centre for Global Health Research, Kisumu, Kenya; ⁵Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, USA; ⁶Centers for Disease Control and Prevention, Kisumu, Kenya; ⁷Vector Biology Department, Liverpool School of Tropical Medicine, Liverpool, UK; ⁸National Malaria Control Centre, Lusaka, Zambia; ⁹Centre National de Recherche et de Formation sur le Paludisme, Ouagadougou, Burkina Faso

INTRODUCTION Measurement of densities of host seeking malaria vectors is important for estimating levels of disease transmission, for appropriately allocating interventions, and for quantifying their impact. The gold standard for estimating mosquito – human contact rates is the human landing catch (HLC), where human volunteers catch mosquitoes that land on their exposed body parts. This approach necessitates exposure to potentially infectious mosquitoes, and is very labour intensive. There are several safer and less labour-intensive methods, with