

Screening of *Toxoplasma gondii* Antibodies in Pregnant and Aborted Women Attending Wad Medani Maternity Teaching Hospital and Um Algura Hospital Using Toxo-Latex Agglutination and Electro-Chemiluminescence Immunoassay (ECLIA)

Mohamed MY¹, Abakar AD¹, Talha BA¹ and Nour BYM^{1,2*}

¹Department of Medical Parasitology, Faculty of Medical Laboratory Sciences, University of Gezira, Wad Medani, Sudan

²Department of Parasitology, Blue Nile National Institute for Communicable Diseases, University of Gezira, Wad Medani, Sudan

*Corresponding author: Bakri YM Nour, Department of Medical Parasitology, Faculty of Medical Laboratory Sciences, University of Gezira, Wad Medani, Sudan, Tel: 249 511 84204; E-mail: bakrinour@gmail.com

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Abstract

immune response. IFN-

complex became bound to the solid phase *via* interaction of biotin and streptavidin.

The reaction mixture was aspirated into the measuring cell where the microparticles were magnetically captured onto the surface of the electrode. Unbound substances were then removed with ProCell. Application of a voltage to the electrode then induced chemiluminescent emission which is measured by a photomultiplier.

Results were determined automatically by the Elecsys software by comparing the electrochemiluminescence signal obtained from the reaction product of the sample with the signal of the cutoff value previously obtained by Toxo IgG and IgM calibration (Cobas411, serial No. 0868-16 manufactured by Hitachi high technologies corporation, Tokyo, Japan).

Study area

The seropositivity of IgG among age group showed 39 cases (66.1%) and 24 cases (43%) in age group 15-25, 28 cases (77.8%) and 23 cases (67.6%) in age group 26-35 and 2 cases (40%) and 3 cases (60%) in age group 36-45 by by Toxo-Latex agglutination test and ECLIA respectively (Table 3).

Maternal status	Toxo-Latex agglutination test		P-value
	Positive	Negative	
Wad Medani	0 (0%)	35 (100%)	0.104
Um Algura	5 (8%)	58 (92%)	

Child blindness	1 (100%)	0 (0%)	0.69	1 (100%)	0 (0%)	0.526
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Table 6

accordance with [33] which indicate high prevalence of IgM anti-Toxoplasma in rural area of Kurdistan.

The high IgG seropositivity reported in age group 26-35 (63%), this due to women in this age are high risky and the most fertile period of childbearing age. In accordance with literature data indicating that seroprevalence increased by age [29,30,35,42].

There were a correlation of Toxoplasma IgG seroprevalence to a sign and symptoms by Toxo-Latex and Cobas tests and Toxoplasma IgM antibodies, this sign mainly fever may be due to disease or other cases such as malaria since the collection was done in high transmitted season of malaria. There is a strong correlation between abortion and seropositivity of both IgG and IgM results (25%) reflect the most serious outcome among those populations at risk, this agreed with that reported by Ebadi P [43] whom found that the prevalence of IgG seroprevalence among women with history of abortion was 17.5%.

There were a correlation of Toxoplasma IgG antibodies to risk, this

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