



OP-07

## A novel confirmatory line immunoassay based on recombinant antigens for diagnosis of ocular Toxoplasmosis

**Presenter Author:** Hassan Morovati

**Email:** h\_morovati@yahoo.com

**Corresponding Author:** Hassan Morovati

Hassan Morovati<sup>1</sup>, Seyyed Javad Seyyed Tabaei<sup>2</sup>, Vafa Saber<sup>2</sup>, Zahra Arab-Mazar<sup>4</sup>

1. Shahid Beheshti University of Medical Sciences
2. Shahid Beheshti University of Medical Sciences
3. Shahid Beheshti University of Medical Sciences
4. Shahid Beheshti University of Medical Sciences

**Background and Aim :** The diagnosis of Toxoplasma infection is generally based on serological methods. recombinantly produced Toxoplasma gondii antigens were considered to replace tachyzoite material in toxoplasmosis serology. This study focused to test a new line immunoassay technique using combinations 8 serologically relevant reactive specific recombinant Tachyzoite and bradyzoite antigens (ROP1, MIC3, GRA7, GRA8, p30, MAG1, GRA1, rSAG1) was proposed for the detection of IgG antibodies on single nitrocellulose membranes strip. **Methods :** The study included 19 samples collected from patients showing clinically ophthalmological diagnosis of retinal/retinochoroidal scars presumably caused by T. gondii infection presented to major ophthalmology centers in Tehran (Farabi, Labbafinejad and Imam Hossein Hospitals). All samples were serologically tested using commercially available Toxoplasma IgG ELISA and followed by recomLine Toxoplasma IgG assays (Mikrogen, Germany). All serological testing was performed according to the manufacturer's instructions. **Results :** The Toxoplasma IgG ELISA screening showed 13/19 sera which were positive and recomline Toxoplasma confirmatory were 16/19 positive sera. We observed a number of samples (5/19) negative in Toxoplasma ELISA but positive in recomline Toxoplasma. There are also 3 negative samples in recomline Toxoplasma but positive in ELISA. Ocular Toxoplasma with recomline Toxoplasma in 16/19 patients appeared to be consistent with those of clinically. **Conclusion :** According to the present results, the recomline Toxoplasma test is beneficial tools for both confirmatory of ELISA screening tests and clinically ophthalmological diagnosis In conclusion, the combined detection of IgG antibody subclasses against recombinant toxoplasmic antigens may be useful for the early diagnosis of congenital toxoplasmosis. **Keywords :** Toxoplasmosis, recombinant, recombine, ocular