

Diagnostic role of Polymerase Chain Reaction in active uveitis

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Abstract:

Purpose: To evaluate the role of polymerase chain reaction (PCR) for detection of Mycobacterium tuberculosis in the vitreous humor samples obtained from eyes with active uveitis.

Subjects and Methods: A total of 15 patients were included in the study with the signs of anterior, intermediate or posterior uveitis. Study was conducted in Department of Ophthalmology Lahore General Hospital, Lahore. Detailed ocular examination including visual acuity using Snellen's chart, slit lamp examination and detailed dilated fundus examination was done. All patients were advised complete blood count with ESR, Mantoux test and chest x-ray. Vitreous fluid samples were taken and sent for polymerase chain reaction for Mycobacterium tuberculosis (MTB) DNA.

Results: Vitreous samples from 15 (15-45 +/-5yrs) patients, 9 male and 6 female, with signs of anterior, intermediate or posterior uveitis on slit lamp examination were taken and sent for Mycobacterium tuberculosis DNA on PCR. In 4 out of 15 samples (26.6%) Mycobacterium tuberculosis DNA on PCR was detected. Out of the 15 patients, 6 were females (15-45years) with 1 (16.6%) positive PCR and 9 (15-40years) males with 3 (33.3%) positive PCR for Mycobacterium tuberculosis DNA. 2 of the male patients were positive for Toxoplasma and one of them was also positive for Cytomegalo virus on TORCH test.

Conclusion: PCR can be effectively used for the diagnosis of intraocular tuberculosis in the presence of clinically identified cases of uveitis. *Al-Shifa Journal of Ophthalmology* 2013; 9(2):63-69 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.