

International Conference on **Parasitology**

August 24-26, 2015 Philadelphia, USA

Prevalence and genotyping of *Acanthamoeba* spp. in keratitis patients from a tertiary care centre of North India

Kirti Megha, Sumeeta Khurana, R Sehgal and Amit Gupta
Post Graduate Institute of Medical Education and Research, India

Acanthamoeba Keratitis (AK) is a painful vision threatening infection caused by a free living pathogenic amoeba *Acanthamoeba*. It is often not suspected and very difficult to treat. Timely diagnosis is required for better visual outcome. A total of 240 patients with suspected infectious keratitis presenting to the Advanced Eye Centre at Postgraduate Institute of Medical Education and Research, a tertiary care centre of North India were included. Their corneal scrapings, tears and lens solutions & lens case (in case of lens wearer) were collected for microscopic examination, culture and molecular diagnosis. A total of 5 patients (2.08%) were diagnosed with AK by NNA culture and PCR. *Acanthamoeba* was detected in corneal scraping in 3 patients who had history of trauma with vegetative matter, wooden stick and dust particles, whereas lens solution in 1 patient and bandage contact lens in 1 patient who underwent surgery for keratoconus. Four of the patients recovered after appropriate treatment and one underwent keratoplasty. Genus specific ASA.S1 amplicon of diagnostic fragment of 18S rDNA gene was used for genotyping. Among 5 isolates, 2 belonged to T4, 2 belonged to T11 and 1 belonged to T5. Trauma and careless practice in contact lens handling, including the use of tap water for storing lenses, poses as a major risk factor associated with AK.

Biography

Kirti Megha has completed her MSc (Hons.) in Zoology from Panjab University, India and is currently pursuing her PhD from Department of Medical Parasitology, Postgraduate Institute of Medical Education and Research, India. She has 2 publications in reputed journals.

kirtimegha03@gmail.com

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