

# CLINICAL FEATURES OF *ACANTHAMOEBA* KERATITIS IN CONTACT LENS WEARERS AND NON-WEARERS

Darawan Wanachiwanawin<sup>1</sup>, Wipawee Booranapong<sup>2</sup> and Panida Kosrirukvongs<sup>2</sup>

<sup>1</sup>Department of Parasitology, <sup>2</sup>Department of Ophthalmology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand

**Abstract.** Clinical presentations of patients with *Acanthamoeba* keratitis (AK) attending the Faculty of Medicine Siriraj Hospital during 1996-2006 were reviewed. The studied parameters included history of ocular trauma, use of contact lenses, associated eye diseases, systemic diseases, visual acuity, symptoms, signs, treatment, visual outcomes, and sequelae. Data were analyzed by comparing non-contact lens (nCL) and contact lens (CL) wearers with each other. Twenty-two patients (24 affected eyes) (68.2% female) had AK, 9 (37.5%) were nCL and 15 (62.5%) were CL. Both groups had similar basic characteristics; however the nCL group was significantly older ( $48.3 \pm 14.5$  vs  $30.6 \pm 15.3$  years old,  $p=0.006$ ), and tended to have a longer duration of symptoms with more severe clinical findings, but this was not statistically significant. Eleven had severe ciliary injection (nCL 55.5%, CL 40.0%), 3 had satellite lesions (nCL 22.2%, CL 6.7%), 2 had radial keratoneuritis in the CL group (13.3%), 1 ring infiltrate in the nCL group (11.1%) and 1 pseudodendrite in the CL group (6.7%). The mean duration of follow-up was  $8.2 \pm 7.9$  (ranging 0.3-29) months. Therapeutic measures included anti-*Acanthamoeba* medications (5/9 for nCL, 8/15 for CL), penetrating keratoplasty due to uncontrolled infections (1/9 for nCL, 2/15 for CL) and corneal perforation (1/9 for nCL), and enucleation due to endophthalmitis (1/9 for CL). At the last follow-up visit, the nCL group had slightly better visual acuity (55.5% vs 66.7%). In conclusion, AK among patients who do not use contact lenses may have a delayed diagnosis, resulted in more severe ocular manifestations and poorer prognosis. Physicians should be aware of *Acanthamoeba* infection as a cause of keratitis in any patient, not just contact lens wearers. Long periods of follow-up are recommended to observe for recurrent episodes and proper management of AK patients.

**Keywords:** *Acanthamoeba* keratitis, clinical manifestation, contact lens wearers, non-contact lens wearers

---

Correspondence: Dr Panida Kosrirukvongs,  
Department of Ophthalmology, Faculty of  
Medicine Siriraj Hospital, Mahidol University,  
2 Prannok Road, Bangkok 10700, Thailand.  
Tel: +66 (0) 2419 8033; Fax: +66 (0) 2411 1906  
E-mail: sipks@mahidol.ac.th