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**Title** : Isolation of acanthamoeba spp. from contact lens paraphernalia

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**Abstract** : Introduction: Acanthamoeba spp. are ubiquitous free-living protozoa that are widely distributed in all types of environment throughout the world. Acanthamoeba sp. is the causative agent of two diseases; keratitis and granulomatous amoebic encephalitis. Contaminated contact lenses and corneal lesions are the major risk factors in causing Acanthamoeba keratitis. Objective: The main objective of this study is to isolate Acanthamoeba sp. from contact lens paraphernalia. Materials and Methods: One hundred and seventy five swabs from contact lens paraphernalia were obtained, consisting of 66 swabs of contact lenses, 52 swabs of contact lens storage cases and 57 samples of contact lens disinfecting solutions. Filtration and culture techniques were used to isolate the organism using standard methods. Results: This study successfully isolated Acanthamoeba sp. from contact lenses and contact lens storage cases at 10.6% and 13.5% respectively. However no Acanthamoeba sp. was isolated from the contact lens disinfecting solution. Many of those contact lens wearers whose contact lens paraphernalia were positive for Acanthamoeba showed a deviation from contact lens wear and care procedures recommended by the lens manufacturer and health professionals. Conclusion: The findings that contact lens paraphernalia harbours Acanthamoeba is particularly worrying as the number of cases is increasing. Contact lens wearers should be educated regarding proper hygienic care of their contact lenses. © 2013 Japan International Cultural Exchange Foundation & Japan Health Sciences University.

**Subject** : Acanthamoeba; Cleaning solutions; Contact lens; Storage cases

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