

Title: Management of Acanthamoeba Keratitis During Pregnancy: A Case Report

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Objective: To report a clinical case of Acanthamoeba keratitis in a pregnant patient.

Introduction: Acanthamoeba keratitis (AK) is a severe, sight-threatening infection, most commonly associated with contact lens wear. AK during pregnancy presents a clinical challenge due to contraindication of systemic adjunctive therapies and safety concerns regarding fetal exposure.

Methods: Medical records of a 33-year-old pregnant patient at the 31st week of gestation presented with severe ocular pain, photophobia, and decreased vision in her right eye were evaluated. She had a history of contact lens wear for recurrent epithelial erosions. Ophthalmological examination and in vivo confocal microscopy were performed for diagnosis.

Results: The initial best corrected visual acuity (BCVA) was 1.30 LogMAR and an epithelial defect was identified. Confocal microscopy confirmed the presence of *Acanthamoeba* cysts. She was hospitalised and topical biguanide drops were administered with punctal occlusion every 2 hours. The clinical response was monitored closely. Complete resolution of the epithelial defect was achieved after a week, and the final BCVA became 0 LogMAR. She was discharged with biguanides 4 times a day. She used biguanides for 6 months and the total follow-up time was 2.5 years. No adverse systemic effect or pregnancy-related complication was reported.

Conclusion: The management of AK in pregnant patients requires a careful balance between aggressive ocular therapy and fetal safety. Early diagnosis and a strictly monitored topical treatment protocol can provide visual rehabilitation and preservation of ocular integrity without systemic complications and fetal teratogenicity.

Keywords: Acanthamoeba; Contact lens; Keratitis; Pregnancy