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Letter to the Editor

Comments on: Optimizing early diagnosis and treatment of acanthamoeba keratitis through corneal scraping

To the Editor,

I read with great interest the recently published article by Chang et al., entitled "Optimizing early diagnosis and treatment of acanthamoeba keratitis through corneal scraping".[1] The authors should be commended for highlighting an important clinical issue in eye care. Acanthamoeba keratitis is uncommon but potentially sight-threatening, especially among contact lens users, and delayed diagnosis can lead to serious visual consequences.[2,3]

The article provides a valuable message for clinicians: early corneal scraping and smear examination can help detect acanthamoeba keratitis before the disease progresses. This is particularly important because early clinical signs, such as elevated superficial punctate keratitis and pseudodendritic lesions, may resemble contact lens-related corneal erosion, sterile keratitis, or herpes simplex keratitis.[1] In daily practice, these overlapping features may delay appropriate treatment, especially when clinicians do not initially suspect acanthamoeba keratitis.

One important strength of this study is its practical diagnostic focus. Although polymerase chain reaction and in vivo confocal microscopy may improve diagnostic sensitivity, these methods are not always available in many clinical settings.[4] Therefore, corneal scraping with careful microscopic examination remains a useful and realistic diagnostic approach, particularly when performed by trained ophthalmologists, optometrists, or laboratory personnel.

The authors also reported that most eyes improved with medical treatment, while one eye that was initially misdiagnosed and treated with corticosteroids required therapeutic keratoplasty.[1] This point is clinically important because corticosteroid use before anti-amoebic therapy has been associated with poorer outcomes in acanthamoeba keratitis.[5] The study therefore reinforces the need for careful diagnostic confirmation before prescribing corticosteroids in suspicious keratitis cases.

However, some areas may benefit from further clarification. First, although the study confirmed cases by identifying cysts in corneal scraping smears, the absence of culture or molecular confirmation limits the ability to fully assess diagnostic accuracy. Future prospective studies comparing smear examination with culture, PCR, and confocal microscopy would help clarify the sensitivity and specificity of this approach.[4]

Second, more detail on how disease severity was classified would improve clinical reproducibility. A clearer distinction between early and advanced acanthamoeba keratitis based on epithelial, stromal, nerve, or anterior chamber involvement may help clinicians decide when PHMB monotherapy is appropriate and when combination therapy should be considered.[6]

Finally, the inclusion of orthokeratology users, especially younger patients, is an important reminder of the need for stronger patient education. Contact lens hygiene, avoidance of water exposure, and careful monitoring of overnight lens wear should remain central preventive messages for eye-care professionals.

Overall, Chang et al. provide a meaningful contribution by emphasizing early suspicion, prompt corneal scraping, and timely treatment in suspected acanthamoeba keratitis. Their article is highly relevant to clinicians involved in contact lens care and corneal disease management.

Credit author statement

AHE contributed to the conception and design of the work, conducted the literature search, drafted the manuscript, revised it critically for important intellectual content, and approved the final version for submission.

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Declaration of competing interest

The author declares no competing interests

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