Letter to the editor

Herpes Simplex Keratitis – an unusual clinical presentation

Ananda Kumar Sharma, Associate Professor
Department of Ophthalmology, Institute Of Medicine
B. P. Koirala Lion's Centre for Ophthalmic Studies
Maharajgunj, Kathmandu, Nepal
Email: dr.anandasharma@gmail.com

Dear Editor,

I read a case report titled "Herpes Simplex Keratitis – an unusual clinical presentation" (Arya et al, 2009) with a great interest. Herpes simplex virus is found worldwide, sometimes with devastating effects although other causes of corneal ulceration are relatively more common in developing countries (Garg P et al, 1999).

The authors have nicely hilighted the uncommon presentation of Herpes Simplex Keratitis in a 22 year old girl who had prior history of labial herpes. The authors have described the ulcer as a posterior stromal abscess measuring 4.5X2.8 mm with intact epithelium and deep vascularisation. There were 2+ anterior chamber reactions with no hypopion. The ulcer was initially treated in a view of fungal etiology with both topical and oral anti-fungal drugs along with topical antibiotics.

Here, the clinical diagnosis was based only on the therapeutic response of antiviral drugs and the presence of serum antibodies to both HSV and VZV.I have had similar experience of diagnostic difficulties in some cases of HSV keratitis which initially appear with the clinical features fungal keratitis.

I wonder that the authors could have used the other diagnostic tests including PCR. Some investigators (Satpathy et al, 2011) have evaluated the tear samples as feasible and convenient alternatives for Herpes Simplex Virus -1 by PCR assay and conventional laboratory diagnostic tools in patients with advanced epithelial keratitis and corneal thinning with impending perforation.

Atypical Herpes Simplex Keratitis presenting as a perforated corneal ulcer with a large infiltrate was described by Sreedharan Athmanathan et al (2001) in an 18 year old woman using contact lenses that had paracentral large stromal infiltrate with a central 2 mm perforation. Corneal scraping had revealed no microorganisms. Giemsa stained smear had shown multinucleated giant cells. The specimen was positive for herpes simplex virus - 1 (HSV) antigen as confirmed by the PCR. Similarly, some investigators (Ghosh et al, 2007; Praveen et al, 2012) had also used the polymerase chain reaction-based ribosomal DNA sequencing technique for the diagnosis of mycotic keratitis.

Despite the availability of a wide range of newer antimicrobials and new diagnostic techniques, infective keratitis continues to pose a diagnostic and therapeutic challenge. The key diagnostic clinical features of infective keratitis in India caused by bacteria, fungi, viruses, nocardia and acanthamoeba have been well elaborated by Athmanathan et al (2008). Sometimes, microsporidial infections causing stromal keratitis can be misdiagnosed as viral keratitis (Vemuganti et al, 2005).

This issue has also been highlighted in a comprehensive review by Karsten et al on diversity of microbial species implicated in keratitis (Elisabeth et al, 2012). Hence, we should always keep in our mind that viral keratitis can be misdiagnosed as fungal keratitis, mixed infections and in few occasions as acanthamoeba keratitis unless proper diagnostic methods are used.

References

Arya SK, Malhotra C, Bhatia R, Sood S (2009). Herpes simplex keratitis — an unusual clinical presentation. Nepal J Ophthalmol; 1(2): 136-8.

Athmanathan S, Pranesh VM, Pasricha G, Garg P, Vemuganti GK, Sharma S (2001). Atypical Herpes simplex keratitis (HSK) presenting as a perforated corneal ulcer with a large infiltrate in a contact lens wearer.BMC Ophthalmology; 1:1

Balne PK, Reddy AK, Gorli SR, Garg P (2010).Evaluation of three PCR assays for the detection of fungi in patients with mycotic keratitis.Br J Ophthalmol ;94:961-962.

Garg P, Rao GN (1999).Corneal ulcer: diagnosis and management.Comm Eye Health; 12:21 - 23.

Ghosh A, Basu S, Datta H, Chattopadhyay, D (2007). Evaluation of polymerase chain reaction-based ribosomal DNA sequencing technique for the diagnosis of mycotic keratitis. Am J Ophthalmol; 144(3): 396-403.

Karsten E, Watson SL, Foster LJ (2012). Diversity of microbial species implicated in keratitis: a review. Open Ophthalmol J; 6: 110–124

Vemuganti GK, Garg P, Sharma S, Joseph J, Gopinathan U, Singh S et al (2005). Is microsporidial keratitis an emerging cause of stromal keratitis? – a case series study. BMC Ophthalmol; 5: 19.

Source of support: nil. Conflict of interest: none