Managing ocular herpes simplex virus with oral antivirals

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A contact lens and cornea practice will encounter a handful of conditions requiring oral medications. The following summarizes the role of oral antiviral treatments for the management of herpes simplex virus (HSV), in the contact lens practice.

Herpes Simplex Virus (HSV) Epithelial Keratitis

The mainstay treatment for epithelial HSV keratitis is a topical anti-viral medication, including Zirgan® (gangciclovir 15 percent gel) or Viroptic (trifluridine 1 percent solution).

There are some reports of HSV epithelial keratitis cases being treated effectively with oral mono-therapy. Due to the lack of large scale clinical trials, such use remains controversial. It is common practice to use oral antivirals as an adjunct to topical treatment. These medications are not indicated by the FDA for this use. Therefore, prescribing oral antivirals for HSV epithelial keratitis is an off label use of the medication.

Oral Antiviral Medications and Dosing for HSV Adjunctive Treatment

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dosing</th>
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<tbody>
<tr>
<td>Zovirax (acyclovir)</td>
<td>400mg five times per day for seven to 10 days</td>
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<tr>
<td>Valtrex (valacyclovir)</td>
<td>500mg three times per day for seven to 10 days</td>
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<tr>
<td>Famvir (famciclovir)</td>
<td>250mg three times per day for seven to 10 days</td>
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Herpes Simplex Stromal Keratitis

Stromal HSV has the biggest risk for causing permanent corneal scarring and vision loss. Twenty to 30 percent of patients with an epithelial HSV lesion develop an immune stromal reaction within five years of the initial episode. The treatment of choice for the immune stromal response is a topical corticosteroid, including Durezol or Pred Forte. It is important to stress that in contrast to HSV stromal keratitis, corticosteroid drops are generally contraindicated in active epithelial HSV. Therefore, ruling out any corneal involvement, or dendritic sign to assure there is only stromal involvement is essential prior to initiating corticosteroid therapy.

The National Eye Institute Herpetic Eye Disease Study (HEDS I) showed no benefit to adding oral acyclovir when patients were already taking topical corticosteroids and topical antivirals in HSV stromal keratitis. Practitioners frequently add topical antivirals and on occasion oral antivirals as an adjunctive therapy, particularly when an epithelial lesion is also present.

Oral Antivirals for Prophylaxis

In the National Eye Institute Herpetic Eye Disease Study (HEDS II), found that taking 400mg acyclovir BID for 12 months reduced the probability that any form of herpes simplex of the eye would return, if an infection existed in a prior year. More importantly there was a 50 percent reduction in the rate of return of herpes stromal keratitis. Some clinicians use 500mg or 1000mg Valtrex once daily for prophylactic therapy. Oral antiviral medications play a critical role in prophylactic HSV therapy, especially in cases where recurrence is an issue.
Herpes Simplex and Contact Lenses

Three studies looked at the role of contact lenses in the recurrence of HSV keratitis. Two of those studies, including the HEDS study, determined that there is no association with HSV keratitis recurrence and contact lenses.\textsuperscript{7,8} One cohort study did show contact lenses increased the likelihood of HSV keratitis reoccurrence.\textsuperscript{9} The study had some limitations and was unable to control for antiviral prophylaxis in both groups. The contact lens wearing group of patients at the Cleveland Clinic likely suffered from more severe prior eye disease, and therefore the probability of reoccurrence was naturally higher. So there is conflicting data on the impact of contact lenses in HSV recurrence. Patient counseling and closer monitoring of recurrent cases is indicated.

References:


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