HERPETIC EYE DISEASE

Introduction

Herpes simplex **type I** is a common ocular pathogen, often caused by autoinoculation from a cold sore. It is very unusual for it to be related to genital herpes, (which is usually caused by Herpes simplex type II virus).

Herpes zoster, or shingles, relatively commonly affects the ophthalmic division of the 5th nerve.

Pathology

Herpes simplex

Herpes simplex causes a range of corneal and anterior segment diseases, including:

- Acute conjunctivitis.
- The classic dendritic ulcer appearance (see below)
- Marginal keratitis
- Disciform keratitis.

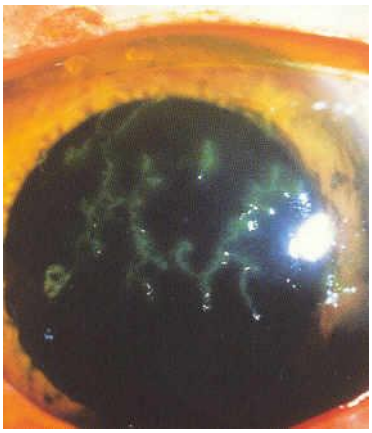
Herpetic corneal disease is the most common cause of corneal blindness in the developed world.

Herpes zoster

- The virus becomes "latent" in the trigeminal ganglion, so that it is often a recurrent disease.
- Triggers to a recurrence include intercurrent infection, sunlight, stress and menstruation.
- Herpes zoster causes an intra-ocular inflammation, causing a significant, long lasting, and often quite destructive anterior segment inflammation, which often has elevated pressure associated with it.
- Post herpetic neuralgia can be a very substantial source of problems, which appears to be diminished in occurrence and severity with the use of anti-viral agents.

Clinical Features

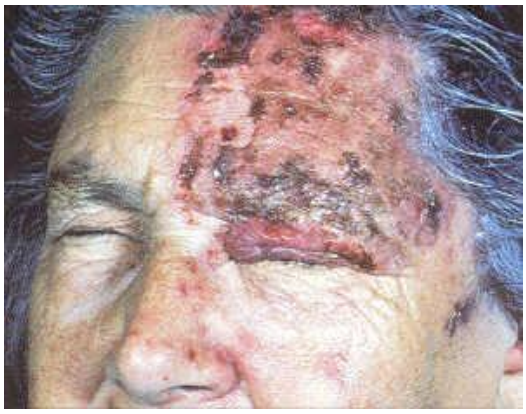
Herpes simplex



Typical appearance of herpetic dendritic ulcer

First presentation of herpes simplex ocular disease may be a moderate to severe conjunctivitis with little apparent corneal involvement. The typical "dendritic" appearance then develops.

Herpes Zoster Ophthalmicus



Herpes Zoster Ophthalmicus with nasal involvement.

Symptoms include paraesthesia, tenderness while brushing or combing the hair, and some redness, followed by vesicular eruptions in the end of the 5th nerve.

Involvement of the naso-ciliary nerve (as above) is usually indicated by eruptions on the tip of the nose. It is a strong indicator of intra-ocular involvement.

Investigations

Fluorescein staining with examination under slit lamp with the "blue light" will enable the diagnosis to be made in most cases.

Swabs can be taken of vesicular fluid from facial lesions for PCR studies.

Management

1. Pain can be significant and the first treatment should be the instillation of local anaesthetic drops the give the patient rapid relief and to allow an adequate examination of the eye.

    - Note, however that patients should **not** be given topical local anaesthetic drops to be taken home, as repeated use of these agents retards epithelial healing and may lead to corneal ulcer formation in their own right.

2. Antiviral agents:

    Early treatment with anti-viral agents is known to make a significant difference to:

    - The recurrence rate.
    - Severity of the acute episode.
    - Reducing the incidence of post herpetic neuralgia.

    If the condition is suspected, therefore treatment should be initiated promptly.

    See latest edition of Antibiotic Guidelines for full prescribing details.

    Herpes simplex

    - Use topical acyclovir

    Herpes Zoster Ophthalmicus

    - Use oral aciclovir (or famciclovir, a longer acting anti-herpetic agent with better patient acceptance)
    - Note that aciclovir, or famciclovir, is less useful when the delay is longer from the onset of symptoms to administration of the drug. Studies suggest that if the delay is longer than 72 hours their use is greatly reduced**.**

      They should always be used in cases of ocular disease however despite a late presentation.

    - **In severe cases where eyesight is threatened, IV aciclovir should be used.**
    - Oral or IV treatment may also be supplemented with **aciclovir 3% eye ointment**, 5 times daily. Aciclovir ointment itself can be irritating to the eye however if used in high doses or for long periods of time.

Note that an "authority" script will be required for oral aciclovir. Aciclovir will only be approved if a zoster rash has been present for less than 72 hours, unless there is ocular involvement where this restriction does not apply.

3. Note that topical steroids are absolutely contraindicated in herpetic eye disease.

Disposition

All cases should be referred to ophthalmology.

Patients with severe symptoms and/or significant co-morbidities may require hospital admission.

Dr J Hayes
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