

Herpes zoster ophthalmicus: is the globe involved?

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DESCRIPTION

An 87-year-old immunocompetent man presented with left-sided herpes zoster ophthalmicus (HZO). His symptoms began with facial dysaesthesia, before erupting into a vesicular rash affecting the left forehead, periorbital skin and nose. The tip of the nose was not involved (figure 1). HZO occurs due to reactivation of latent varicella-zoster virus (VZV) in the trigeminal ganglion. The reactivated virus has a predilection for the ophthalmic division of the trigeminal nerve.¹ Reactivation is more common in immunocompromised persons and in the elderly.²

The ophthalmic division of the trigeminal nerve divides into three main branches: the frontal nerve, the lacrimal nerve and the nasociliary nerve. The nasociliary branch innervates the ciliary body, iris, cornea and conjunctiva. Its terminal branch is the anterior ethmoidal nerve, which innervates the sides of the tip of the nose (alae nasae) via the external nasal nerve.

Hutchinson³ observed that ocular involvement is more commonly seen if the HZO rash involves the alae nasae. Up to 85% of such cases may develop ocular involvement¹; all such patients should have an urgent ophthalmic examination.⁴ If Hutchinson's sign is absent ocular involvement is less likely, however can still occur and is likely to be present if the patient reports reduced vision, eye pain or photophobia. Additionally, reduced corneal sensa-

tion is a useful sign of ocular involvement. If these features are present immediate referral to ophthalmology is needed.

In this case the alae nasae was spared, and the patient denied any eye pain or photophobia. A comprehensive eye examination revealed no evidence of anterior or posterior segment inflammation. The patient was managed with systemic acyclovir and prophylactic topical antibiotic ointment to protect the ocular surface.

Learning points

- ▶ Latent varicella-zoster virus in neurons of cranial and spinal ganglia may reactivate to produce shingles (zoster). A particular predilection for the ophthalmic division of the trigeminal nerve exists.
- ▶ A herpes zoster ophthalmicus rash involving the tip of the nose (alae nasae) is known as a positive Hutchinson's sign. This indicates nasociliary nerve involvement; the nasociliary also innervates the eye.
- ▶ Involvement of the eye is more common when Hutchinson's sign is positive; however, the eye may still be involved despite a negative Hutchinson's sign. Reduced vision, eye pain, photophobia and reduced corneal sensation are good indicators of eye involvement.



Figure 1 A vesicular rash affecting the left forehead, periorbital skin and nose but sparing the tip of the nose. This is known as negative Hutchinson's sign.

Contributors ASH came up with the idea and wrote the paper in conjunction with JS-I. MT provided a supervisory role.

Competing interests None.

Patient consent Obtained.

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