

BACKGROUND

Herpes zoster ophthalmicus is characterized by the involvement of the ophthalmic division of the trigeminal nerve. Ocular manifestations are observed in 20–70% of individuals with this condition, encompassing conditions such as blepharitis, keratoconjunctivitis, iritis, scleritis, and acute retinal necrosis. Orbital apex syndrome, although rare, represents a severe ocular complication associated with herpes zoster ophthalmicus. OAS involves dysfunction of V1, the oculomotor nerve (III), the trochlear nerve (IV), and the abducens nerve (VI), as well as dysfunction of the optic nerve (II).

OBJECTIVES

To present a case series of orbital apex syndrome associated with Herpes Zoster infection.

METHODS

Case series

RESULTS

Case 1:

77-year-old female presented with gradual onset headaches, right periorbital rash, right eye redness, swelling and ptosis. On exam seen to have dermatomal crusted rash in V1 distribution, ophthalmoplegia, dilated non-reactive pupil and reduced visual acuity of right. MRI head and orbit showed right orbital subcutaneous edema, thickening of the right extraocular muscles & enhancement along right optic nerve sheath extending to adjacent fat & right orbital apex and superior orbital fissure.

CSF ME panel positive for VZV. Treated with 2 weeks of IV Acyclovir, 3 weeks of steroid taper and antibiotics for superimposed bacterial orbital cellulitis. Minimal improvement in 2 weeks.

Case 2:

69-year-old male presented with altered mental status and droopiness of right eye. On exam, found to have near complete right eye ptosis, non-reactive pupil, EOM restriction and decreased visual acuity. No dermatomal rash seen on face. CSF ME panel positive for VZV. MRI head/orbits showed leptomeningeal enhancement, right CN3 cisternal portion and internal auditory canal enhancement. Retrobulbar edema adjacent to optic disc. Enlarged bilateral superior ophthalmic vein. Treated with 21 days of IV Acyclovir for VZV meningoencephalitis with orbital apex involvement (seen without VZV ophthalmicus)

CONCLUSIONS

These cases highlight the atypical presentation of orbital apex syndrome, emphasizing the importance of prompt recognition and early antiviral therapy to prevent complications associated with herpes zoster infection. Providers should be aware of this complication and should monitor patients carefully during the first 3 weeks after the onset of VZV. Other causes of OAS include a variety of inflammatory, infectious, neoplastic, iatrogenic/traumatic, and vascular conditions. Aspergillosis and mucormycosis are the other most common infectious causes of OAS.

REFERENCES

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2. Jorge C. Kattah, John S. Kennerdell, Orbital Apex Syndrome Secondary to Herpes Zoster Ophthalmicus, American Journal of Ophthalmology