Unusual Complications Associated with Maxillary Herpes Zoster

Abstract:
Sir,

Maxillary Herpes Zoster (HZ) is rare. Trigeminal HZ most frequently involves the ophthalmic division. Partial or complete ophthalmoplegia is a well-known complication of ophthalmic HZ, and Horner's syndrome has been previously reported. To our knowledge, simultaneous sixth nerve palsy and Horner's syndrome complicating maxillary HZ in which the ophthalmic division was spared has not been reported.

Case Report
A 70 year old female presented with progressive drooping of the left upper lid associated with infraorbital pain, diplopia and limitation of abduction in the left eye. This was preceded 8 days earlier by multiple painful, vesicular eruptions distributed along the lower eyelid, left ala of the nose and upper lip. Examination revealed characteristic HZ erythematous crusting lesions in the sensory dermatome of the maxillary division. There was a left 2.5mm ptosis associated with limited abduction and an ipsilateral smaller pupil, with anisocoria increasing in the dark. The patient was admitted for intravenous acyclovir (10 mg/kg, 8 hourly). Gadolinium-enhanced magnetic resonance imaging and angiography revealed no evidence of cranial nerve pathology or involvement of the cavernous sinus. There was a marked improvement over 7 days with the rash and Horner's pupil resolving completely. Ocular motility and ptosis improved gradually over the next 3 weeks with complete recovery of the sixth nerve palsy at 6 months.

Discussion
Maxillary HZ is rare with less than 30 cases reported to date in the English literature. For unknown reasons, involvement of the ophthalmic division in trigeminal HZ is 20 times more frequent than the other divisions. The maxillary nerve is the least frequently affected branch and only rarely causes ocular injury. External ocular motor palsies with diplopia are frequent in acute ophthalmic HZ if diligently evaluated, but are usually transient. Typically, the third cranial nerve is involved, usually within 2 weeks of the cutaneous eruptions; whilst isolated paralysis of the sixth and fourth cranial nerves occurs less often.

Maxillary HZ is mostly associated with oral or dental complications; however several ocular, neurological and systemic sequelae following maxillary HZ have been reported in the literature. Partial or complete ophthalmoplegia following maxillary HZ has not been previously reported. Involvement of the sympathetic nervous system can result in Horner's syndrome even when the ophthalmic division is spared. Other reported ocular complications include dry eye with punctate keratitis, conjunctivitis and peri-ocular oedema. Reported dental complications include alveolar bone necrosis, spontaneous exfoliation of teeth, maxillary osteomyelitis and facial scarring. Ipsilateral facial nerve paralysis following HZ affecting the maxillary division has been reported with the same patient also developing disabling postural hypotension probably due to HZ involvement of the reticular formation in the brain stem around the facial nucleus. Occipital infarction, manifesting as hemiplegia, following HZ involving the maxillary division of the trigeminal nerve has also been reported. Patients with HZ involving any trigeminal division may therefore be at risk for delayed cerebral infarction.

In conclusion, we describe an unusual case of maxillary HZ with ipsilateral sixth nerve palsy and Horner's syndrome. This report alerts the physician that presentation of maxillary HZ is very variable and may be associated with ocular, dental or systemic complications.

K Falzon, M Galea, M Guerin, P Logan
Mater Misericordiae Hospital, Eccles Street, Dublin 7
References

Comments:

Unusual Complications Associated with Maxillary Herpes Zoster