Otolaryngologic Significance of the Hutchinson Sign

Parker A. Velargo, MD; Merry E. Sebelik, MD, FACS
University of Tennessee Department of Otolaryngology/ Head & Neck Surgery

ABSTRACT

Objectives: As otolaryngologists, we need to familiarize ourselves with the presentation of Herpes Zoster as well as have a detailed understanding of the anatomy of the trigeminal nerve. Our patients’ vision rests on our ability to recognize the Hutchinson sign. The anatomic basis of the Hutchinson sign lies within the ophthalmic division of the trigeminal nerve (V1), specifically the nasociliary branch. Thus, this case report will strive to demonstrate the clinical significance of this sign as well as serve to illustrate pertinent anatomy.

Study Design: This is a case report with review of the literature.

Methods: A 38 year-old female presented with pruritic and painful lesions to her columellar-labial angle and right periorbital area. Our patient was promptly diagnosed with Herpes Zoster Ophthalmicus with a preceding positive Hutchinson sign. A review of the literature revealed limited information on this sign in otolaryngologic journals.

Results: A positive Hutchinson sign indicates an increased risk of ocular involvement in herpes zoster ophthalmicus (HZO). Additionally, the Hutchinson sign has been found to be strong predictor of visual loss in HZO.

Conclusions: As otolaryngologists, we often see patients with facial lesions, especially lesions on or around the nose. It is imperative that we are familiar with the appearance of Herpes Zoster as well as the clinical significance of the Hutchinson sign. Because of the sign’s strong association with visual loss, our ability to obtain an urgent ophthalmologic consultation is mandatory to prevent severe ocular complications.

BACKGROUND


Anatomically, the trigeminal nerve is divided into three main branches: ophthalmic (V1), maxillary (V2), and mandibular (V3). The V1 branch innervates the forehead, eye, nose, and upper lip. The V2 branch innervates the cheek, mouth, and mandible, while the V3 branch innervates the lower jaw and muscles of mastication. The nasociliary nerve is a branch of the ophthalmic division (V1) and innervates the nose, including the nasal tip and the skin of the nasolabial fold.

CASE PRESENTATION

A 38 year-old female presented to the Emergency Department complaining of pruritic and painful lesions to her face. Her otolaryngology service was subsequently consulted.

DISCUSSION

Primary Varicella-Zoster Virus (VZV) infection results in chickenpox. Even when clinical symptoms of chickenpox have resolved, VZV enters into a viral latency and remains dormant in the patient’s dorsal root ganglia or cranial nerve ganglia (e.g., trigeminal ganglion). Herpes Zoster (i.e., shingles) occurs when the latent VZV reactivates along the dermatomal distribution of the respective infected ganglion.

The Hutchinson sign may be defined as Herpes Zoster occurring on the nasal tip or columella (areas innervated by the nasociliary nerve).

One can easily understand the anatomic basis of the Hutchinson sign by coursing the path of the ophthalmic division of the trigeminal nerve (V1), specifically the nasociliary branch. Thus, this case report will strive to demonstrate the clinical significance of this sign as well as serve to illustrate pertinent anatomy.

On the evening prior to her presentation, she developed similar appearing painful lesions around her right eye. She denied any ophthalmologic symptoms (e.g., eye pain, blurred vision, double vision, photosensitivity, epiphora, or visual changes otherwise). The pain was increasing in intensity over time.

Her past medical and surgical history were unremarkable with the exception of a remote history of chickenpox as a child.

On physical exam, the patient was afebrile. A group of crusted vesicles on an erythematous base were present at the columellar-labial angle (i.e., Hutchinson sign). A similar group of vesicles were noted to the right periorbital area, including upper and lower eyelids as well as the lateral periorbital area (See Figure 3). There was a moderate amount of conjunctival erythema; however, visual acuity was grossly within normal limits.

The patient was discharged the next day and made a full recovery after outpatient therapy with the above medication regimen.

REFERENCES