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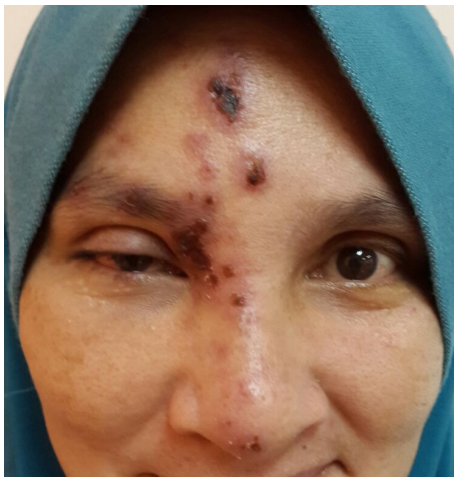

A 45 year-old lady who had type 2 diabetes mellitus complained of poor vision of the right eye for three days. This started after skin lesions appeared on her forehead (**Panel**). On examination, the lesions were noted over the ophthalmic division of the right trigeminal nerve with a positive Hutchinson's sign. The right upper eyelid was swollen and conjunctiva was injected. Visual acuity was 6/36 PH 6/12. Corneal sensation was reduced but no epithelial defect was noted. Anterior chamber activity was noted to be 2+. Intraocular pressure and the remainder of the ocular examination was normal.

Q: What is the diagnosis?

Answer*: refer to page 184*

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(*Refer to page 159*)

Answer: Herpes Zoster Ophthalmicus

Herpes Zoster Ophthalmicus (HZO) is the involvement of the ophthalmic division of the trigeminal nerve (Cranial nerve V) during the reactivation of varicella zoster infection. Between 10 and 25% of patients with herpes zoster have ocular involvement. [1] A periorbital vascular rash is usually the main presentation in HZO. The diagnosis can be made based on the characteristics and location of the rash.

Lesion at the tip of the nose, referred to as the Hutchinson's sign is due to the involvement of the terminal branch of the nasociliary nerve, also known as the external nasal nerve. It correlates significantly with risk of ocular complications. [1] The most common complication of herpes zoster is postherpetic neuralgia (PHN), defined as the presence of significant pain or dysaesthesia at or three months after herpes zoster. [2] This occurs as a result of damage of the pain-related nervous system.

Impaired vision is due to complications affecting the; **a)** cornea (epithelial keratitis, nummular keratitis [direct viral invasion], neurotropic keratitis and corneal ulceration from hypoaesthesia), **b)** uvea (anterior uveitis secondary inflammation and autoimmune mechanisms as in this particular case), **c)** retina (occlusive retinal vasculitis such as Acute Retinal Necrosis and Progressive Outer Retinal Necrosis secondary inflammation and autoimmune mechanisms), and **d)** optic nerve (Optic Neuritis secondary inflammation and autoimmune mechanisms).

Acyclovir given within 72 hours after onset of the rash may reduce the risk of ocular complications by 20-50%. [3] However, in the elderly, treatment should be considered even after more than 72 hours due to delayed immune response causing a prolonged viral shedding period. [4] Immunisation with live attenuated vaccine is encouraged in those at risk. [1] The table summarised the treatment for the various complications of HZO.

Table: Treatment for complications of ophthalmic zoster.

Conditions	*Treatment*
Stromal keratitis	Topical steroid
Neurotrophic keratitis	Topical lubrication, topical antibiotic to prevent secondary infection, tissue adhesive, protective contact lens
Uveitis	Topical steroid, oral steroids, oral acyclovir
Acute retinal necrosis/progressive outer retinal necrosis	Intravenous acyclovir (1,500 mg per m^2 per day divided into three doses) for seven to 10 days, followed by oral acyclovir (800 mg orally five times daily) for 14 weeks

REFERENCES

1: Shaikh S, Ta CN. Evaluation and management of Herpes Zoster Ophthalmicus. Am Fam Physician. 2002; 66:1723-30.

2: Johnson RW, Whitton TL. Management of herpes zoster (shingles) and postherpetic neuralgia. Expert Opin Pharmacother. 2004; 5:551-9.

3: Cobo LM, Foulks GN, Liesegang T, et al. Oral acyclovir in the treatment of acute herpes zoster ophthalmicus. Ophthalmology 1986; 93:763-70.

4: Zaal MJ, Volker-Dieben HJ, Wienesen M, D'Amaro J, Kijlstra A. Longitudinal analysis of varicella-zoster virus DNA on the ocular surface associated with herpes zoster ophthalmicus. Am J Ophthalmol. 2001; 131:25 -9.