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# HARPES ZOSTER ON THE RIGHT PERI ORBITAL REGION– A CASE STUDY

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## ABSTRACT

Herpes zoster is a localised disease caused by reactivation of the varicella zoster virus [1] that enters the cutaneous nerve endings during an earlier episode of chicken pox, travels to the dorsal root ganglia, and remains in latent form. The condition is characterised by occurrence of multiple, painful, unilateral vesicles and ulceration, and shows a typical single dermatome innervated by single dorsal root or cranial sensory ganglion. Involvement of three or more dermatomes is known as disseminated zoster and seen in immunocompromised individuals. Complications of herpes zoster include ocular sequelae, bacterial superinfection of the lesions, meningoencephalitis and postherpetic neuralgia. The incidence of herpes zoster increases with age and immunosuppression, therefore prompt management is necessary to avoid morbidity and mortality in these individuals. We present one case reports of herpes zoster, involving the maxillary and mandibular branches of the trigeminal nerve.

## INTRODUCTION

The 'varicella zoster virus' (VZV), which is distributed worldwide, is a neuro dermo tropic virus that remains dormant in the sensory ganglion and, on reactivation, causes herpes zoster. Reactivation of VZV may occur spontaneously or when host defences are compromised. Predisposing factors for VZV reactivation can be increased age, physical trauma (including dental procedures), psychological stress, malignancy, radiation therapy and immunocompromised states including transplant recipients, steroid therapy and HIV infection.[2]Herpes zoster (HZ) typically erupts within one or two adjacent dermatomes, with thoracic (50–60%), cervical (10–20%) and trigeminal (10–20%) being more commonly involved, while lumbar (5–10%) and sacral (5%) are other less commonly involved dermatomes. In immunocompetent patients, involvement of non-contiguous dermatomes is never seen, although overlapping of adjacent dermatomes can be seen in 20% of cases. [3]

The involvement of maxillary and mandibular branches without the involvement of the ophthalmic branch accounts for 1.7% to 2% of total cases of HZ, which is comparatively rare. [4-5]

## Case presentation

Study was conducted in Balrog OPD of the Institute. A 3year male child presented after 3 days of enduring painful blisters on the Right side of his peri orbital region, fever for the past 2 days. He developed the fluid-filled blisters 2 days after the fever. The pain was severe, continuous and radiating in nature. The blisters were initially small and few in number; they later increased in number covering the entire right periorbital region with a watery discharge. The patient was unable to eat food or maintain oral hygiene. No relevant medical, dental or family history was reported. The surrounding skin was red in colour and very tender on palpation. The ulcers were irregular in shape and covered with pseudomembranous slough at the base, surrounded by an erythematous halo. The ulcers were tender on palpation.

**Local Examination**

1. Vrana akruti: oval appearance, swelling at pre orbital region with redness on right pre orbital region measuring approximately 5×3cm in length.
2. Sparsh: Ushna (Local temperature raised).
3. Gandha: Prakruta i.e. no foul smelling wound.
4. Strava: no any discharge.
5. Vedana: Painful (Grade 4 according to Visual Analogue scale).
6. Varna: The overlying skin becomes red, pustules on peripheral skin was reddish.
7. Itching: itching was present.

Herpes Zoster was daily assessed as per the Vrana Pariksha [6]

**Pathological Investiogation:**

| | | | |
|---|---|---|---|
| WBC | 4000/cumm | HIV | Non- reactive |
| HB% | 11.3 Gm/dl | HbsAg | Neagtive |
| Lymphocytes | 59 % | ESR | 35mm |

**Differential diagnosis** [7]

The unilateral distribution of painful, grouped vesicles in a dermatomal pattern suggested HZ. However, contact dermatitis was ruled out owing to the history and the unilateral presentation of the lesion. Sycosis barbae was excluded by the presence of intraoral lesions and absence of follicular pustules.

**Treatment** [8]

Patients were treated with antiviral and supportive therapy for 1 week. Syrup Acyclovir (400 mg/5ml) 3.5 ml 6 Hourly were prescribed to control the active viral phase. Acyclovir 5% ointment local application twice a day was advised for peri orbital region. Syrup Cetrizine 5mg/5ml Onces a day, syrup Paracetamol (250 mg/5ml) 4ml were given to alleviate pain and fever. Syrup multivitamin and multimineral preparation as supportive therapy, were added.

**Ayurvedic Treatment**

1. Shanshamana Vati 1 twice a day
2. Anantamul ghana vati 1 Three times a day
3. Chandrakala Rasa 1 Twice a day
4. Triphala churna 3gm + Shunthi churna 500mg Twice a day + Saindhava Churna 500mg Twice a day

All medications given for 10 days.

**Observation:**

Herpes Zoster was examined on 1 st day. There was multiple pustules and Depth of herpes zoster was approximately 0.3cm exposed periorbital region, Fluid filled pustules at periorbital region, marginal erythematous rash involving right periorbital region which is progressive in nature and oval shaped, area involving right eye. After achieving desired integrative treatment like antiviral, antiallergic and antihistamine, multivitamin. After 7 days, Fluid filled pustules at periorbital region, marginal erythematous rash involving right periorbital region which is markedly decreased in nature. area involving right eye tends to towards normal nature also Local inflammatory signs around right eye got reduced.

Before treatment

After Treatment

**DISCUSSION**

HZ is also known as shingles, which is derived from the Latin *cingulum*, meaning 'girdle'. This is because a common presentation of HZ involves a unilateral rash that can wrap around the waist or torso like a girdle. The name zoster is derived from classical Greek, referring to a belt-like binding (known as a zoster) used by warriors to secure

armour. [9] Herpes Zoster is a rare case. But it is a prevailing impression among both pediatricians and lay men that the naggin and herpes zoster are commonly associated with previous infection of varicella zoster virus and the immunocompromised patients or more likely to suffer from viral infection with associated secondary bacterial infection, Patient complaints of pain, swelling, redness, fever and pustules involiving unilateral region are most often misdiagnosed as urticaria, contact dermatitis or allergic reaction. Childerns are more prone to viral infection in preschool and in school going age as their immunity is not fully developed. Early clinical Antiviral treatment was given and choice of antiviral was given according to in textbook. In this present case study patient was totally unaware about condition and complication related with respected diagnosis and prompt conservative management plays importance role. The diagnosis is frequently delayed as it occurs around orbital region or on the nasolabial fold of face and hence may be mistaken as allergic reaction. Management principles involve early aggressive conservative management, strict fever control and appropriate antiviral drugs management is necessary. Proper personal hygiene should he maintained in case of immunocompromised patient. In this case patient have no any issue related with compromised immunity in history. condition.

## CONCLUSION

Herpes Zoster affects mostly in patients with history of previous exposure to Varicella virus most commonly. Secondary bacterial infection like Staphylococcus aureus is often organism. Strictly personal hygiene and complete diet which Is full of nutrients plays important roll while dealing with the case of Viral infection.

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