

## Oro-cutaneous presentations of Herpes Zoster in a healthy adult

Dr. W. Robindro Singh<sup>1</sup>, Dr. Ngairangbam Sanjeeta<sup>2</sup>, Dr. O. Brajachand Singh<sup>3</sup>, Dr. T. Nabachandra Singh<sup>4</sup>

<sup>1</sup>(Associate Professor, Dental College, Regional Institute of Medical Sciences, Manipur, India)

<sup>2</sup>(Assistant Professor, Dental College, Regional Institute of Medical Sciences, Manipur, India)

<sup>3</sup>(Associate Professor, Dental College, Regional Institute of Medical Sciences, Manipur, India)

<sup>4</sup>(Professor, Dental College, Regional Institute of Medical Sciences, Manipur, India)

---

**Abstract:** A well built 43 yrs old male of medium height with no history of past medical illness and with a negative HIV status presented with pain on the left cheek with a couple of painful white lesions in the mouth associated with malaise. Considering it to be an aphthous ulcer treated with analgesic, antiseptic mouth wash, a topical anaesthetic gel, and a multivitamin. Three days later condition worsened with cutaneous vesicles and postulation. The case was shown to a dermatologist and a diagnosis of herpes zoster was made based on the clinical manifestations. Then treated with Tab Microvir (Famciclovir), analgesic, vitamin, and a chlorhexidine mouth wash. The signs and symptoms completely disappeared by the twelfth day of the initiation of the treatment. Presence of oral lesions without dermal lesions, in an unsuspecting individual, during the early stage of HZ can mislead the diagnosis and management of the condition. Early diagnosis and prompt management with an antiviral agent and a corticosteroid, can markedly decrease the morbidity of the disease, and also avoid complications like post herpetic neuralgia.

**Keywords:** aphthous Ulcer, mucocutaneous lesions, dermal manifestation, Herpes zoster.

---

### I. INTRODUCTION (THE CASE)

The case concerned is a well built 43 yrs old male of medium height with no history of past medical illness and with a negative HIV status. He was not associated with any habits like tobacco or prohibitive drugs, though he took alcohol occasionally. His blood sugar, complete hemogram, KFT, and LFT profile were within normal limits. He had a history of multiple tooth extraction related to dental caries and hence was partially edentulous. On his first visit, his main complaint was pain on the left cheek with a couple of painful white lesions in the mouth associated with malaise. The oral ulcers which were present in the buccal mucosa were non-specific, irregularly shaped, whitish in colour, with an erythematous border and without the presence of vesicles. Considering it to be an aphthous ulcer we prescribed an analgesic, antiseptic mouth wash, a topical anaesthetic gel, and a multivitamin. Three days later, he came back complaining that his pain and lesions had become worse after the treatment. On examination at the second visit, erythematous elevations were present in the temporal and the malar region following a distinctive pattern, with overlying vesicular eruptions (fig.1). A couple of similar but smaller lesions were seen on the upper lip and chin. Some of the cutaneous vesicles had become cloudy because of pustulation. No skin lesions were seen on the right half of the face. Intra-orally, there were multiple vesicles of whitish or yellowish white colour, some arranged in clusters, predominantly over the lateral aspect of the palate, retromolar region and residual ridge. The laterally situated lesions in the palate were covered with a yellowish white plaque. Few lesions were present in the buccal mucosa and over the mid palatal raphe but there were no crossover to the contra lateral side (fig 2). The case was shown to a dermatologist because of the cutaneous presentations and a diagnosis of herpes zoster was made based on the clinical manifestations. No specific diagnostic test was done except for the routine investigations and the test for retroviral antibody. The treatment regimen for the patient consists of Tab Microvir (Famciclovir), 250mg, given thrice daily for seven days, along with an analgesic, a neurotropic vitamin, and a chlorhexidine mouth wash. A clotrimazole ointment was also applied to the oral lesions. Prednisolone was added three days after the initiation of the antiviral drug as there was not much symptomatic relief till then. The protocol for prednisolone was 5 tabs. (Dispred 4mg) given simultaneously once daily for 3 days, tapered to 4 tabs for the next 3 days, followed by 2 tabs. daily for another 3 days, and finally, one tab daily for the last 3 days. Follow up of the patient one week after the initiation of the treatment showed marked improvement of the oral and dermal lesions. There was marked reduction in the intensity of pain and the patient felt much better. Tiny new vesicular eruptions were sparsely scattered on the face as scabs were formed at the sites of the older lesions on the 7<sup>th</sup> day of treatment. The signs and symptoms completely disappeared by the twelfth day of the initiation of the treatment.

## II. DISCUSSION

Herpes Zoster (HZ) is a painful rash resulting from the reactivation of the varicella zoster virus (VZV) in the dorsal root ganglia. It commonly involves C<sub>3</sub>, T<sub>5</sub>, L<sub>1</sub>, L<sub>2</sub>, and the ophthalmic division of the trigeminal nerve.<sup>1</sup> The maxillary and mandibular division of the nerve were less commonly involved but it is when these two divisions were involved that orofacial lesions are present.<sup>2</sup> Motor nerves may be involved but they are usually unnoticed.<sup>2</sup> The risk factors include increasing age, immunosuppression, intrauterine exposure to varicella, and outbreak of varicella at an age younger than 18 months. HZ is contagious to those who have not had varicella or have not received the varicella vaccine.<sup>1</sup> There were reports of its occurrence in healthy young adults though.<sup>3</sup> Our case is reported because of its occurrence in an unsuspecting healthy individual, because of the marked oral presentations, because of the rapid resolution of the condition without complications, and because of the considerable time lag in the dermal manifestations after the appearance of the oral lesions. Precipitating factors include immediate trauma, immediate exposure to X-ray radiation, immunosuppressive drugs or disease, and malignancies.<sup>4</sup> In our case the attack began for no apparent reason as there was no exposure to any of these factors. Since pain is one of its significant presentations, it should be differentiated from other conditions which cause orofacial pain like pulpitis.<sup>5</sup> Post herpetic neuralgia (PHN) is the most common complication of HZ, which is defined as pain lasting longer than 30 days after the disappearance of the mucocutaneous lesion.<sup>2</sup> Other complications include secondary infections of the lesions leading to cellulitis, ocular infection leading to blindness, motor paresis and encephalitis.<sup>1</sup> Early diagnosis and treatment of HZ may offer the best chance of avoiding PHN while early treatment of this complication, once it develops, provides the best chance of pain relief.<sup>6</sup> A study involving 1071 elderly people showed that PHN has a predilection for females, older age groups, people who had severe rash during the disease, and for people who were alone during the acquisition of HZ.<sup>7</sup> Diagnostic aids include viral culture, immunofluorescent antigen-staining, serologic demonstration of varicella zoster specific immunoglobulin M, and polymerase chain reaction (PCR) techniques.<sup>1</sup> Correlation of clinical symptoms with serologic demonstration of antibody titre may be required in cases of diagnostic challenge when pain is present without mucocutaneous lesions, as it occurs in zoster sine eruptione or during the prodromal period.<sup>2</sup> In our case, no specific diagnostic test was considered necessary because of the distinctive clinical presentations. The nature, course and pattern of distribution of the cutaneous lesions in our case were similar to those reported in the literature. But there was no scarring at the site of the cutaneous lesions in our case. Acyclovir, famciclovir and Valacyclovir are the antiviral drugs available for HZ.<sup>1,2</sup> They are found to accelerate healing and reduce pain.<sup>2</sup> Some literatures propose the 50-50-50 rule: 50 hours or less since onset of lesions, to be given in 50 years or older and 50 or more lesions, to improve the effectiveness of the antiviral drugs.<sup>1</sup> Steroids given with acyclovir provide greater reduction in pain and discomfort requiring less time in leading the patient to normal activity.<sup>1</sup> It was also our experience in our case where there was significant improvement in the oral lesions after the addition of oral prednisolone on the third day of treatment.

## III. FIGURES



Fig 1: Erythematous swelling with overlying vesicles on the left side of the face.



Fig 2: Unilateral distribution of vesicles covered with plaque in the oral cavity.

#### **IV. CONCLUSION**

Presence of oral lesions without dermal lesions, in an unsuspecting individual, during the early stage of HZ can mislead the diagnosis and management of the condition. Early diagnosis and prompt management with an antiviral agent and a corticosteroid, as shown in our case, can markedly decrease the morbidity of the disease, and also avoid complications like post herpetic neuralgia. Considering this and the fact that it can be contagious to those who are not vaccinated or previously unexposed to the varicella zoster virus, the importance of ruling out HZ when non-specific painful oral ulcers occur in young, healthy individuals cannot be overemphasized.

#### **REFERENCES**

- [1]. Mounsey AL, Matthew LG, Slawson DC. Herpes Zoster and Post herpetic Neuralgia: Prevention and Management. *Am Fam Physician* 2005; 72:1075-80.
- [2]. Greenberg MS. Ulcerative, Vesicular, and Bullous lesions. In: Greenberg MS, Glick M, editors. *Burket's oral medicine diagnosis and treatment*. 10<sup>th</sup> edn. New Delhi: Harcourt India Pvt. Ltd.; 2003.p.50-84.
- [3]. McKenzie CD, Gobetti JP. Diagnosis and treatment of orofacial herpes zoster: report of cases. *J Am Dent Assoc* 1990; 120: 679.
- [4]. A text book of oral pathology. Shafer WG, Hine MK, Levy BM, Tomich CE, editors, 4<sup>th</sup> edition. New Delhi: Harcourt India Pvt. Ltd.; 1993.p.55-7.
- [5]. Lopes MA, de Souza Filho FJ, Jorge J Jr, de Almeida OP. Herpes Zoster as a differential diagnosis of acute pulpitis. *J Endod* 1998; 24:143-4.
- [6]. Manke JJ, Heins JR. Treatment of Post herpetic Neuralgia. *J Am Pharm Assoc* 1999; 39: 217-21.
- [7]. Wood MJ, Shukla S, Fiddian PA, Crooks RJ. Treatment of acute Herpes Zoster: Effect of early versus late therapy with acyclovir and valacyclovir on prolonged pain. *J Infect Dis* 1998; 178(Suppl 1): 81- 4.