

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.e-jds.com

Correspondence

Oral herpes zoster – Case report



Journal of

Sciences

Dental

KEYWORDS Herpes zoster; Hard palate; Oral cavity

The herpes zoster is caused by the infection of varicellazoster virus (VZV, also known as human herpesvirus-3 or HHV-3). The primary infection with VZV is called chickenpox (varicella) and the secondary infection with VZV is termed herpes zoster (shingles).^{1,2} Here, we presented a case of oral herpes zoster at the left posterior two-thirds of the hard palate of a 33-year-old male patient.

This 33-year-old male patient came to the dental department of our hospital for treatment of multiple ulcerations on the left half of the hard palate. The palatal ulcerations were present for 4 days and were so painful that prevented the patient from eating dry and solid food. The patient said that he was very busy during the past two weeks for finishing a project of house wall painting. He felt exhausted and fatigued after the two-week work and then got the disease. Fever was noted only in the first three days of the disease. Intraoral examination revealed multiple white opaque ulcerations with erythematous halos on the left half (mainly the posterior two-thirds) of the hard palate. The ulcerative lesions did not cross over the middle line of the hard palate (Fig. 1A). Because the oral lesions were specific and limited to the left half of the hard palate, herpes zoster was diagnosed from its characteristic clinical presentation. The patient was treated with acyclovir (400 mg, three times per day) together with analgesics (500 mg acetaminophen, twice per day) as well as supplementation of folic acid (folacin, two tablets of 5 mg folic acid, once per day) and vitamin B12 (methycobal, two tablets of 500 μ g vitamin B12, once per day) for one week. The patient came back one week later with partial healing of the multiple palatal ulcerations (Fig. 1B). He was treated with the same drugs and vitamins of the same dosages for one more week. The patients visited our clinic two more weeks later with complete healing of the multiple palatal ulcerations (Fig. 1C). He was followed up 1 month later with no recurrence of oral lesion and no complaint of postherpetic neuralgia.

The VZV is the causal virus of chickenpox (primary infection) and herpes zoster (secondary infection). After primary infection, the VZV establishes latency in the dorsal root ganglia. Reactivation of VZV in the trigeminal ganglion with subsequent traveling of the viruses down to the sensory nerve that supplies the oral mucosae may cause oral lesions such as vesicles and ulcerations on the movable or non-movable oral mucosae.^{1,2} Although herpes zoster is often diagnosed from characteristic clinical presentation, other laboratory tests such as viral culture, immunofluorescence staining of cytologic smears with fluorescent monoclonal VZV antibodies, dot-blot hybridization, and polymerase chain reaction (PCR) can help to identify VZV as a causal virus of the disease.¹ The differential diagnoses of oral herpes zoster may include primary and secondary infection with herpes simplex virus (HSV) and herpetiform recurrent aphthous stomatitis.^{3–5} In primary HSV infection, the whole gingiva is enlarged, painful, and erythematous. The oral lesions of secondary HSV infection are groups of small vesicles or ulcerations that limited to focal areas of attached gingiva or hard palate.^{3,4} The oral lesions of herpetiform recurrent aphthous stomatitis are limited to nonmovable or non-keratinized oral mucosae.^{3,5} However, the oral lesions of herpes zoster are unilateral (limited to the right or left half of gingiva or hard palate) and more diffuse.^{1,2} Therefore, oral herpes zoster is relatively easy to be diagnosed from oral presentation alone. Oral herpes

https://doi.org/10.1016/j.jds.2020.10.001

^{1991-7902/© 2020} Association for Dental Sciences of the Republic of China. Publishing services by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).



Figure 1 Clinical photographs of our case of oral herpes zoster in a 33-year-old male patient. (A) Initial intraoral photograph exhibiting multiple white opaque ulcerations with erythematous halos on the left half (mainly the posterior two-thirds) of the hard palate of the patient. (B) Intraoral photograph taken one week later showing partial healing of the multiple palatal ulcerations. (C) Intraoral photograph taken three weeks later showing complete healing of the multiple palatal ulcerations.

zoster is usually treated with anti-viral agents and supportive treatment. It may recur if the patient becomes immunocompromised. $^{1,2}\!$

Declaration of Competing Interest

The authors have no conflicts of interest relevant to this article.

References

- Neville BW, Damm DD, Allen CM, Chi AC. Viral infections and allergies and immunologic diseases. In: Neville BW, Damm DD, Allen CM, Chi AC, eds. Oral and maxillofacial pathology. 4th ed. , vols. 218–29. St Louis: Elsevier, 2016:303–8.
- 2. Schmader K. Herpes zoster. Ann Intern Med 2018;169:ITC19-31.
- Chiang YT, Hwang MJ, Lee YP, Chiang CP. Differential diagnosis between herpetic gingivostomatitis and herpetiform aphthous ulcerations. J Dent Sci 2020;15:386–7.
- Tovaru S, Parlatescu I, Tovaru M, Cionca L. Primary herpetic gingivostomatitis in children and adults. *Quintessence Int* 2009; 40:119–24.
- Chiang CP, Chang JYF, Wang YP, Wu YH, Wu YC, Sun A. Recurrent aphthous stomatitis - etiology, serum autoantibodies, anemia, hematinic deficiencies, and management. J Formos Med Assoc 2019;118:1279–89.

Yun-Chen Tsai Yi-Pang Lee

Department of Dentistry, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien City, Taiwan

Ming-Jay Hwang

Department of Dentistry, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien City, Taiwan Department of Dentistry, National Taiwan University Hospital, College of Medicine, National Taiwan University, Taipei, Taiwan

Chun-Pin Chiang*

Department of Dentistry, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien City, Taiwan Department of Dentistry, National Taiwan University Hospital, College of Medicine, National Taiwan University, Taipei, Taiwan

Graduate Institute of Oral Biology, School of Dentistry, National Taiwan University, Taipei, Taiwan

*Corresponding author. Department of Dentistry, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, No. 707, Section 3, Chung-Yang Road, Hualien, 970, Taiwan. *E-mail address:* cpchiang@ntu.edu.tw (C.-P. Chiang)

> Received 1 October 2020 Available online 12 October 2020