Journal of Oral Medicine, Oral Surgery, Oral Pathology and Oral Radiology 2021;7(3):172–175

Content available at: https://www.ipinnovative.com/open-access-journals

Journal of Oral Medicine, Oral Surgery, Oral Pathology and Oral Radiology

Journal homepage: www.joooo.org

Case Report

Ramsay hunt syndrome- expect the unexpected: A case report

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ARTICLE INFO

Article history:
Received 25-06-2021
Accepted 26-06-2021
Available online 07-10-2021

Keywords:
Herpes zoster
Varicella zoster
Ramsay hunt syndrome
Postherpetic neuralgia
Zoster oticus

ABSTRACT

Herpes zoster represents a latent reactivation of the varicella zoster virus infection with a dermatomal pattern of eruption and complicated by post-herpetic neuralgia. Ramsay hunt syndrome is a rare complication of herpes zoster and it is not just a syndrome but it's rather an infectious disease. This syndrome is characterized by peripheral facial nerve palsy associated with an erythematous vesicular rash on the ear. It is characterized by unilateral pattern of facial involvement and presence of vesicles helps in early diagnosis and distinguish the syndrome with diseases mimicking other severe neurological diseases. This article reports a case of 56-year-old male patient who reported with a complaint of severe toothache, which serves as severe prodrome for reactivation of herpes zoster virus which later leads to Ramsay Hunt syndrome.

Conclusion: This case report highlights about the management of herpes zoster and its complication and emphasizes on prevention of post herpetic neuralgia complication.

1. Introduction

Infection with the Herpes zoster virus served as a potentially serious systemic disorder in the adults.[1] Clinically, it is represented as a unilateral vesicular rash restricted to a single dermatome corresponding to the ganglion in which the dormant varicella zoster virus is reactivated. Skin lesions are associated with segmental neuralgia leads to pain and paresthesia.[2] A special form of zoster infection of geniculate ganglion, with involvement of external ear, oral mucosa, peripheral facial nerve palsy accompanied by an erythematous vesicular rash on ear (zoster oticus) is termed as Ramsay Hunt syndrome.[3]

2. Case Report

A 56-year old male patient reported with pain in his left lower back tooth region since three to four days for which he took over the counter medication. He also complained of severe pain and ulcerations in mouth since one day. There was no relevant past medical and dental history. His vital parameters were within the normal range except 100°F body temperature. Extra-oral examination revealed pale to yellow-colored vesicles on left side of face distributed over lower lip, mandibular parasymphyseal region, cheek, pre-auricular region, post-auricular region, temporal region, external auditory meatus and tragus region (Figures 1 and 2).

Intra-oral examination revealed multiple ulcerations with encrustations on the left half of the lower labial mucosa, buccal mucosa, lower labial vestibule, buccal vestibule, left side of the tongue, floor of mouth, and soft palate with size ranging approximately from 0.1x0.1 cm to 1x1 cm (Figures 3, 4 and 5). On hard tissue examination, severely attrited 34 with pulp exposure, root stumps of 13, disto-occlusal caries in 14, deep pocket in relation to 35 and grade I mobility in several

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https://doi.org/10.18231/j.jooo.2021.052

teeth was present. 34 was tender on percussion. A provisional diagnosis of acute apical periodontitis with respect to 34 and other diagnosis of herpes zoster involving maxillary and mandibular branch of trigeminal nerve was made. Erythema multiforme, herpetic gingivostomatitis, erosive lichen planus, pemphigus and mucous membrane pemphigoid were considered as differential diagnosis.

The patient was prescribed with tab. valacyclovir (1000mg- three times daily), acyclovir cream (for topical application, four-five times daily), ibuprofen (400mg- two times daily), oint. Mucopain and warm saline gargles.

After five days, patient started complaining of drooling saliva and inability to close his left eye completely and numbness in the left side of face. Physical examination revealed that extra-oral lesions were partially dried up and intra-oral lesions reduced in size and extent. There was loss of wrinkles in the left side of forehead, drooping of the left eyelid and drooling saliva due to drooped left angle of mouth (Figure 6). Left pinna and external auditory meatus were swollen. A sharp shooting, lancinating pain was present arising from the left ear and radiating downwards along the course and distribution of the mandibular branch of trigeminal nerve, visual analog scale score was seven, indicative of neuralgic pain involving trigeminal nerve and facial palsy which is a feature of Ramsay Hunt syndrome. The patient was prescribed with prednisolone (30mg twice a day), Gabapentin (300mg -HS) and Carbamazepine (100mg- once a day) along with physiotherapy. After eight days, extra-oral and intra-oral lesions were healed. VAS score was five. Patient was advised to stop gabapentin. After 15 days, VAS score was four and symptoms of facial paralysis also reduced (Figure 7). Patient was advised to continue with prescribed medications along with tapered dose of prednisolone and to continue physiotherapy. After 20 days, patient was able to close his eyes completely and wrinkles were also reappeared over the left side of forehead. VAS score was three. Patient was advised to continue with carbamazepine-100mg. After 25 days, there was improvement in the symptoms of facial paralysis and pain with VAS score two. The dose of prednisolone was tapered and stopped. For next three visits with duration of seven days each, there was improvement in symptoms of facial paralysis but no relief in pain. The VAS score continued as two. A combination of gabapentin (300mg- HS for seven days), carbamazepine (100mg once a day for seven days) and neurobion forte (once a day for seven days) was prescribed. Based on the early diagnosis and combination therapy, high impact on better quality of life was seen.

3. Discussion

Herpes zoster is an acute infection with dermatomal eruption pattern. Reactivation of the virus can occur due to various triggering factors like advanced age, physical and psychological trauma, immunomodulatory medications

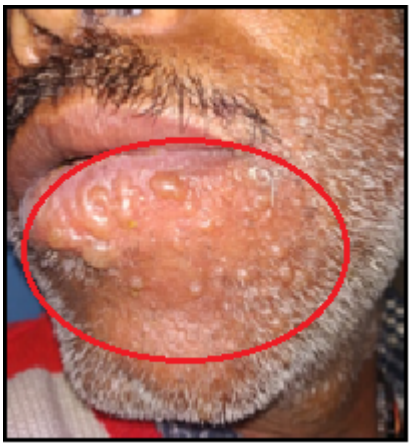

Fig. 1: Vesicles are present in the left side of face in the lower lip and cheek

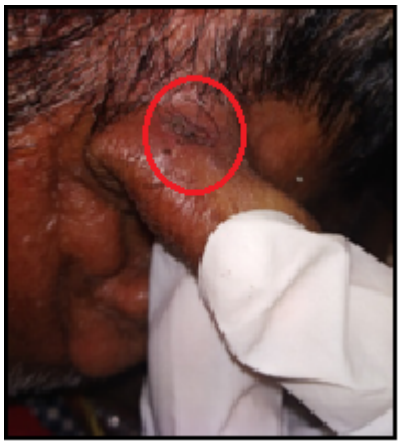

Fig. 2: Vesicles are present in the left side post-auricular region

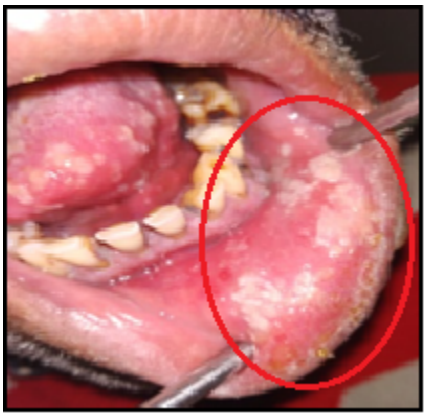

Fig. 3: Multiple ulceration present intraorally in the left side of lower labial mucosa

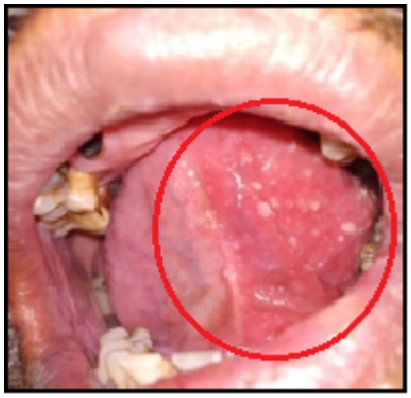

Fig. 4: Multiple ulceration present intraorally in the left side of tongue (dorsal and ventral surface)

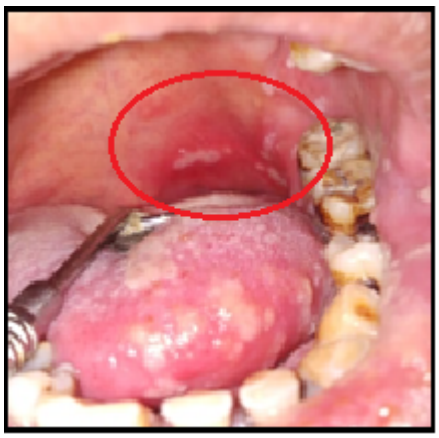

Fig. 5: Multiple ulceration present intraorally in the left side of hard and soft palate

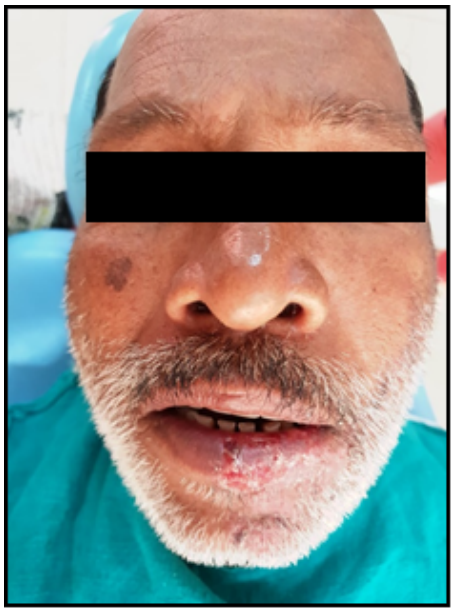

Fig. 6: Signs of facial palsy in the first recall visit

Fig. 7: Signs of facial palsy in the third recall visit

etc.[1] In our patient, maxillary and mandibular division were involved with the vesicular eruptions along the distribution of these three branches with facial palsy, vesicles of external ear, and loss of taste sensations in anterior two-third of the tongue, which are considered as key factors for the diagnosis of Ramsay Hunt syndrome. The early diagnosis and initiation of management is indicated in herpes zoster infection to alleviate symptoms and to prevent secondary infection. Management includes anti-virals which includes the acyclovir (800mg),[2–4] valacyclovir (1000mg)[1] and famcyclovir (500mg).[5] But because of poor bioavailability,[6] valacyclovir (1000mg three times a day) and famcyclovir (500mg three times a day) is the drug of choice for oral administration. Post-herpetic neuralgia can be managed with the use of anticonvulsants such as gabapentin, phenytoin, carbamazepine, and tricyclic antidepressants.[4,5] In the present case, management was done using antiviral drug along with anti-convulsant carbamazepine with a dose of 100mg per day and gabapentin (300mg per day). Later, when the patient developed signs and symptoms of facial palsy, corticosteroid was administered. Although corticosteroids are contraindicated in viral infections but they provide beneficial results in resolving facial palsy.

4. Conclusion

Ramsay Hunt syndrome is considered as an emergency condition and requires early diagnosis followed by management for a good prognosis and less long term adverse effects. Despite of diagnostic challenge, unilateral pattern of facial involvement and vesicular eruption helps in early diagnosis and differentiate the syndrome with

diseases that mimicks other severe neurological diseases. The treatment should be initiated within 72 hours of the disease onset to prevent further morbidity. Antiviral therapy along with steroids should be initiated to prevent the disease progression, which lead to permanent neuronal damage.

5. Source of Funding

None.

6. Conflict of Interest

None.

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Cite this article: Saxena P, Reddy GVR, Handa H, Singh A. Ramsay hunt syndrome- expect the unexpected: A case report. *J Oral Med, Oral Surg, Oral Pathol, Oral Radiol* 2021;7(3):172-175.