



Ramsay Hunt Syndrome in HIV Positive Individual

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Authors' contributions

This work was carried out in collaboration between all authors. Author NJ designed and wrote the manuscript. Author AKN conceptualized and reviewed the manuscript. Author RM analyzed and reviewed the manuscript. Author MB did literature research and patient management. All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Ramsay-Hunt syndrome (RHS) is caused by varicella zoster virus (VZV) infection in the geniculate ganglion of the facial nerve. It is characterized by facial palsy, otic pain, herpetic vesicles around the auricle and external auditory canal. We report here rare case of a RHS affecting a middle-aged individual, in human immunodeficiency virus (HIV) positive patient. The patient presented with severe herpes zoster infection of the maxillary and mandibular divisions of the trigeminal nerve. Unilateral vesicles involved lower and middle 1/3rd of trigeminal nerve distributed area on the left side of the face. Intraoral involvement included buccal, labial and palatal mucosae of the affected side. Patient also suffered with lower motor neuron facial palsy of facial muscles on the affected side.

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1. INTRODUCTION

Ramsay Hunt syndrome (RHS) called as herpes zoster oticus or herpes zoster cephalicus is caused by VZV associated with severe pain in and around the ear and vesicles involving the pinna [1]. VZV is one of eight herpes viruses known to infect humans [2]. Increased age, physical trauma, psychological stress, malignancy, radiation therapy, immunocompromised states including transplant recipients, steroid therapy, and HIV infection are predisposing factors for VZV reactivation. The incidence of herpes zoster infection increases by 15 times in HIV-infected patients and also about 25% patients affected by Hodgkin's lymphoma [3]. The purpose of this case report is to increase the awareness about this clinical entity among health care workers and contribute to the existing literature.

2. CASE REPORT

A 42-year-old male patient reported to our out-patient department with complaints of vesicular eruptions on the left pinna, external auditory meatus, facial weakness deviation of the angle of mouth to the opposite side and inability to close the left eye from last 15 days. The patient gave a history of fever about 20 days ago, after which he developed vesicular lesions on the left side of the face (Fig. 1). Patient also reported unclear hearing of left ear, hoarseness, vertigo and tinnitus. His medical history revealed that he was diagnosed with HIV infection about 4 years ago. Patient was under antiretroviral therapy for about one year and discontinued it.

The lesions characteristically did not cross the mid line. During facial examination, the patient demonstrated an inability to close the left eye, to corrugate the left eyebrow or to move his lips and lower motor neuron facial palsy was also noted on the left side. Multiple, irregular ulcerations along with intact vesicles were present over the vermilion border and labial mucosa of the lower lip on the left side not crossing the midline. The crustations and ulcers appeared large, irregular, and coalescent with each other and were tender on palpation. Oral examination revealed vesicular eruptions, erythema, areas of ulcerations were noted unilaterally over the distribution of the maxillary and mandibular nerves, including the hard palate (Fig. 3).



Fig. 1. On extraoral examination showed the crusted lesions in the chin region and lips (Fig. 2)



Fig. 2. Shows crusted lesions on the lips and chin

An hyperkeratotic white scrapable patch was also present unilaterally on the dorsum of the tongue which was easily removed by wiping or scraping. Gingival inflammation and ulceration with the presence of a greyish pseudomembrane involved both the marginal and attached gingivae in mandibular lower vestibule. Spontaneous gingival bleeding noted in lower anterior teeth region. Also few vesicles were present at lower labial mucosa (Fig. 4).

On the whole, patient was disoriented and weak. Multiple teeth were missing; the remaining teeth had poor periodontal status. Based on the history and clinical examination, a provisional diagnosis of Ramsay Hunt Syndrome (RHS) with grade V facial palsy was made according to House-

Brackman classification in HIV-infected individual. Complete blood examination and HIV screening test were advised, however patient did not turn out with the report.



Fig. 3. Shows unilateral vesicles over palate



Fig. 4. Shows ulcerative gingiva and few vesicles on lower labial mucosa

3. DISCUSSION

Varicella-zoster virus, member of herpesviridae family has structural characteristics like a lipid envelope surrounding a nucleocapsid with icosahedral symmetry, a total diameter of 180–200 nm and centrally located double-stranded DNA about 125,000 bp in length [4]. The incubation period is 10-21 days and patients are contagious from 2 days before the rash appears until all elements have crusted, usually after 5-7 days [5]. RHS is the second most common cause of a peripheral facial paralysis. Before 1986, the frequency of zoster in patients with peripheral facial paralysis was estimated to be 4.5%-8.9%

[6]. Female gender and in general age above 50 years, renders patients more susceptible to RHS. The reason for female predisposition to RHS is unknown, but the incidence of i.e., herpes simplex infection is also higher in females.⁵ RHS is diagnosed clinically and is based on unilateral facial weakness plus vesicular lesions in the ipsilateral ear, hard palate or anterior 2/3 of the tongue. Facial weakness is identified by facial drooping; a widened palpebral fissure and decreased smile on the affected side [7]. The signs and symptoms present in our case were suggestive of RHS. Although in most patients the diagnosis of RHS can be made on clinical grounds, in some patients, especially those with other dermatologic conditions that confuse the clinical picture (e.g. Kaposi's sarcoma), laboratory testing may be beneficial. In such patients, the diagnosis of acute herpes zoster may be confirmed by obtaining a Tzanck smear from the base of a fresh vesicle [8]. Devaleen¹ and Sharma [9] both showed similar findings which correlated with our case report having similar vesicular eruptions over the pinna, otalgia and facial weakness i.e. deviation of the angle of mouth and inability to close the affected eye but our case report also showed intraoral involvement of vesicles and crustations included buccal, labial and palatal mucosae of affected side. The most recommended therapy for RHS is the combination of acyclovir and prednisone [9]. Acyclovir is the drug of choice with recommended dosage of 800 mg four to five times a day for 10 days. Other newer agents such as Famciclovir 500 mg and Valacyclovir 1 g can be prescribed three times a day for 7 days. ART is given in HIV patients of tablets lamivudine (150 mg), zidovudine (300 mg) both tablets twice daily, and nevirapine (200 mg) once daily for 2 weeks along with acyclovir (800 mg) five times a day for 10 days and benzydamine mouth rinse (tantum oral rinse) 4-5 times per day for 10 days for symptomatic relief [3]. This article reports a case of RHS in which facial palsy, vesicles involving left pinna, hoarseness, vertigo, tinnitus and involvement of the facial nerve, vestibulocochlear nerve, glossopharyngeal nerve, vagus nerve in HIV patient. Early diagnosis with appropriate management is required to reduce the duration and severity of the disease.

CONSENT

As per international standard or university standard written patient consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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