Indian J. Otolaryngol. Head Neck Surg.
(April–June 2008) 60, 171–173
DOI 10.1007/s12070-008-0041-x

Case Report

Ramsay hunt syndrome in a person with HIV disease

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Abstract We report a case of 45-yr-old HIV positive male who presented with herpes zoster oticus at the time of diagnosis of his HIV status. The patient had vertigo, painful vesicular eruptions on the right ear and unilateral sensorineural hearing loss. The etiology, diagnosis and treatment of herpes zoster are discussed in detail in this report. We report this case to raise awareness among the general practitioners to investigate for HIV when they diagnose cases of herpes zoster

Keywords HIV · Herpes zoster · Geniculate ganglion · Facial palsy · India

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Introduction

Ramsay Hunt syndrome called as herpes zoster oticus or herpes zoster cephalicus is caused by varicella zoster virus (vzv) and associated with severe pain in and around the ear and vesicles involving the pinna. In its mildest form it may or may not be associated with any neurological signs but in its severest form it is associated with sensorineural hearing loss, disturbance of vestibular function and even viral encephalitis. Here we report a case of Ramsay Hunt syndrome in a person with HIV disease in Chennai.

Case report

A 45-yr-old man with HIV infection was referred to YRG-CARE, a tertiary HIV referral centre in Chennai on early 2006 and he had signs of right lower motor neuron facial nerve palsy.

On eliciting the history, patient had right earache and right-sided facial pain for 15 days. Three days later, he was unable to close the right eyelid. He had tinnitus and vertigo. There was no history of ear discharge, nasal discharge, headache, seizure or weakness of the limbs. He was tested as HIV positive one-week back when was evaluated for these problems. He had never been on antiretroviral therapy.

On examination the patient was moderately built, afebrile, conscious, oriented, not jaundiced, his blood pressure was 120/80 mm/hg. His respiratory system and cardiovascular systems were normal. There was no organomegaly. On CNS examination, Bell's phenomenon was present on the right side. There was loss of nasolabial fold on the right side. The angle of the mouth was deviated towards the left side and had gross facial asymmetry. Patient had grade 4 House Brackman staging of the facial paralysis.

Right ear had numerous vesicles on the concha of the right pinna and the ear canal was edematous. There

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was no ear discharge, and the tympanic membrane was intact. On examination of the left ear did not reveal any abnormalities.

His audiogram showed moderate sensori neural hearing loss on the right side. CT brain showed no abnormalities.

Patient's HIV status was confirmed with double Elisa method. Blood investigations done showed CD4 209, Hb 15.5,g/dl, ESR 3mm/hr, blood sugar random 167mg/dl, blood urea 25mg/dl, serum creatinine 1.0.mg/dl.

The patient was diagnosed as a case of Ramsay Hunt syndrome and started on tablet Acyclovir 800mg five times a day for 10 days, tapering dose of tablet prednisolone, labyrinthine sedatives, physiotherapy for facial nerve palsy and ocular care. He was initiated on tablet zidovudine 300mg twice daily, tablet lamuvidine150 mg twice daily, tablet nevirapine 200mg in an escalating dose. Patient was reviewed two weeks later. The vesicles on the right ear had completely resolved. He still had vertigo. Patient was able to close the eyelids with effort, there was slight movement of the forehead muscle and slight deviation of the angle of the mouth. Patient was advised to continue physiotherapy for facial muscles and vestibular rehabilitation exercise. Patient was on regular follow-up. He was last reviewed on after a year. His facial nerve function improved in all areas (grade1 House Brackman staging of the facial paralysis), and his CD4 was 252.

Fig. 1 Facial nerve palsy with Bell's phenomenon

Fig. 2 Herpetic vesicles in the ear

Discussion

The purpose of this report is for its rarity and to raise the awareness among the general practitioners to suspect HIV when they come across various manifestations of Herpes Zoster: A Similar report has been published in the US [1].

Ramsay Hunt syndrome is herpes Zoster of the geniculate ganglion, which results from the reactivation of the VZV lying dormant in the dorsal root ganglia following prior infection. The syndrome includes facial nerve palsy, earache, loss of taste sensation in the anterior two-thirds of the tongue, dryness of the mouth and eyes, veiscles in the pinna, ear canal, tongue, and/or hard palate. If the vestibulocochlear nerve which is in proximity to the geniculate ganglion is involved patients may have tinnitus, hearing loss, and vertigo.The deafness could be sensori, sometimes neural or mixed [2].

The risk of developing herpes zoster depends on the decline in cell-mediated immunity. Herpes zoster is one of the AIDS defining illness. Other factors are old age, immunosuppressive therapy used in malignancies, transplantation, autoimmune and dermatological disorders

Direct fluorescent antigen staining of the cells swabbed from the base of the lesion is sensitive and specific than viral culture .It differentiates herpes zoster from herpes simplex virus (HSV). Tzanck test is relatively insensitive and does not differentiate herpes zoster from HSV. Identification of the DNA can be done by polymerase chain reaction from the swabs taken from the base of the vesicles [3]. Examination of the cerebrospinal fluid or gadolinium enhanced Magnetic resonance imaging in these patients did not have any diagnostic or prognostic value [4].

Treatment of varicella Zoster is with oral Acyclovir, a DNA nucleoside analogue, which inhibits virus replication, thus halting the cell cycle. Initiation of Acyclovir within 48 hours of the onset of rash is needed for optimal efficacy. Acyclovir significantly shortens the time to complete resolution of Zoster-associated pain compared with placebo, (valaciclovir was superior to Acyclovir in this regard) even when therapy was delayed up to 72 h after rash onset [5]. Several controlled trials verified that high-dose oral Acyclovir speeds resolution of the acute events and reduces the risk for prolonged pain. Recent studies showed valacyclovir, which has to be, given orally 1gm thrice daily for 7 days to be more convenient and slightly superior to acyclovir in reducing post herpetic neuralgia [6]. Famciclovir is a prodrug of the nucleoside analogue penciclovir and used as 500 mg thrice daily. Famciclovir is convenient but not superior to acyclovir. The choice among these three drugs

should be based on convenience, availability, and cost. A double blind, randomized comparison of valacyclovir and high-dose Famciclovir in treatment of acute herpes zoster did not detect differences on the clinical outcome measures of zoster-associated pain, rash healing, and post herpetic neuralgia [7]. Steroids reduce the inflammation in the facial canal. Early administration of acyclovir-prednisone was proved to reduce nerve degeneration by nerve excitability testing. Hearing recovery is also better in these patients [8]. Proper steps should be taken to keep the affected eye moist; to prevent keratitis and corneal break down. About 30% of HIV persons have zoster at least once within 12 years after the diagnosis of HIV. They have 20 times more risk than their age-matched seronegative persons. Herpes zoster is often the first clinical manifestation of HIV infection and occurs at the early course of HIV disease [9]. Early detection of HIV facilitates the possibility of prevention, early detection and management of opportunistic infections associated with HIV, early accessibility to antiretroviral therapy and its potential treatment benefits.

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