



## **Ramsay Hunt Syndrome (RHS): A Case Report**

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### **ABSTRACT**

*Ramsay Hunt Syndrome is an uncommon herpes zoster consequence with symptoms that resemble an infectious disease rather than a syndrome, such as facial nerve palsy, vestibular eruptions, and cochlea vestibular symptoms. This study reports a new case of Ramsay Hunt syndrome in a 57-year-old Indian woman who arrived with left-sided ear pain and fluid-filled lesions over the left ear that had been accumulating for three days and had progressed downwards to involve the ear and chin mandible. Closer examination revealed many vesicles with crust in the left external ear, tragus, occipital area, chin, mandible, and cervical lymphadenopathy all had innumerable vesicles with crust present. There was no clinical evidence of the characteristic feature of facial nerve palsy. Our case was exceptional since the patient evinced vesicles and otalgia but no obvious facial paralysis. Ramsay Hunt syndrome was clinically determined to be the cause of her appearance. Following efficient antiviral and corticosteroid medication, the patient made acceptable progress. The purpose of this study report is to emphasise the necessity of a comprehensive medical assessment and timely management of Ramsay-Hunt syndrome.*

**Keywords:** Ramsay Hunt Syndrome (RHS), herpes zoster, Oral antiviral

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### **INTRODUCTION**

In 1907, James Ramsay Hunt established Ramsay Hunt syndrome (RHS), which is caused by the reactivation of the Varicella Zoster Virus (VZV), which has been dormant in the sensory root ganglia of a chickenpox sufferer for years [1]. It is an unusual condition characterised by ipsilateral peripheral facial paralysis and herpes zoster oticus<sup>2</sup>. It is distinguished by acute facial palsy, vestibule cochlear dysfunction, and a herpetic eruption on the auricle and external ear canal [3]. Other typical symptoms and signs include tinnitus, hearing loss, nausea, vomiting, vertigo, and nystagmus<sup>6</sup>. Patients with Ramsay Hunt syndrome benefit better when given corticosteroids coupled with antiviral medication [11].

This study emphasizes the importance of a comprehensive clinical assessment and immediate treatment in Ramsay-Hunt syndrome .

### **Case Report**

A 57-year-old Indian female came to our general medical department complaining of left-sided ear ache and fluid-filled lesions over the left ear that had been developing for three days and had proceeded downwards to involve the ear and chin mandible. This was not connected with headache, dizziness, tinnitus, hearing loss, or mouth angle deviation.

There was no history of TB, diabetes mellitus, hypertension, asthma, substance abuse, diabetes, or any other coexisting disorders. She had no previous trauma or surgical operations. The last menstrual cycle was menopausal. She has no notable family history and hails from a less fortunate economic background.

Upon closer inspection, it was found that the left external ear, tragus, occipital region, chin, mandible, and cervical lymphadenopathy all had numerous vesicles with crust present. No clinical indication of facial nerve palsy was present. A corneal lesion could not be detected during an ophthalmological examination. The results of the liver function test, total blood count, and renal function test were all within normal limits. Her behavior led to a Ramsay Hunt syndrome diagnosis in a clinical setting.

The patient began receiving treatment with oral antiviral (valacyclovir 1g, three times daily) and intravenous steroids (dexamethasone 1cc per day). The vesicular rash vanished after the follow-up, which was encouraging.

## DISCUSSION

Ramsay Hunt proposed that Herpes Zoster Ophthalmicus (HZO) was caused by geniculate ganglionitis. Contrarily, Bell's palsy has been associated with type-1 herpes simplex virus in a number of cases; however, VZV1 is the primary etiologic agent of RHS. Vesicular eruptions on the external ear, severe ear pain, and ipsilateral peripheral facial paralysis are characteristics of RHS. The geniculate ganglion's reactivation of the latent Varicella Zoster virus is what causes it. The neuro pathogenesis of RHS, according to Grose et al., is brought on by the chickenpox virus invading the ganglion via the sensory branches of the facial nerve located on the ear and tongue. While VZV travels through the sensory fibres and enters the oropharynx or skin surrounding the ears from the geniculate ganglia [1, 5, 12, 16, 19].

Herpetic vesicles, which occur on the auricular, external ear canal, face, oral mucosa, and neck, are among the signs and symptoms of Ramsay Hunt syndrome. Severe ear discomfort in the affected ear, tinnitus, hearing loss, hyperacusis, vertigo, and dysgeusia are otologic symptoms connected to facial paralysis; nausea and vomiting may also be present [4, 6, 14]. Ramsay Hunt syndrome is still diagnosed based on a history and a neurological examination [7].

This condition is distinguished by facial paralysis, which is more common and frequently more severe than in traditional Bell's palsy presentations. Our patient had vesicles and otalgia, but there was no evident facial paralysis.

RHS is best treated with a mix of steroid and antiviral medicines. Acyclovir is efficient as an antiviral against herpes zoster viruses that are actively replicating. Acyclovir does not function on its own. Viral thymidine kinase must first phosphorylate it in order to transform it into triphosphate. Acyclovir triphosphate inhibits viral DNA polymerase, preventing DNA replication [8, 9]. As viral resistance to acyclovir grows, newer drugs such as valacyclovir, famciclovir, penciclovir, and brivudine are being used more frequently [1].

Additional steroid medication may be beneficial in the treatment of facial paralysis caused by RHS. A study of 80 RHS patients treated with acyclovir and prednisone found complete facial recovery, or House grade I, in 52% of patients, regardless of how severe their RHS was previous to medication [11, 13, 17].

Electrical stimulation, infrared radiation, and face neuromuscular activities including auto massage, relaxation exercises, and exercises to suppress synkinesis, exercises to enhance coordination, or exercises to increase emotional expressiveness are all a part of the facial palsy rehabilitation plan. When older adults take the VZV vaccine, their cell-mediated immunity to the virus increases, defending them against herpes zoster and post herpetic neuralgia [10, 15, 18].

## CONCLUSION

A case study of a 57-year-old Indian female patient with fluid-filled ear lesions illustrates the effectiveness of antiviral medication in promoting rapid healing. Antiviral medications taken orally and intravenously were used to treat the patient RHS is an uncommon illness that sometimes has hazy symptoms and an unusual presentation. A better and more thorough recovery can only be attained with an early therapeutic intervention with medications. Despite a favourable prognosis, any treatment delay increases the risk of sequelae. Both a high level of suspicion and meticulous monitoring are required. Patients with Ramsay Hunt syndrome should begin acyclovir-corticosteroid therapy as soon as possible. This study emphasises the need of early therapy in the prevention of chronic disease.

## Declaration of the Patient Consent:

The authors refer that an informed consent form has been obtained before submitting a case in a journal with clinical data. The patient is aware that while every effort will be taken to maintain her privacy and ensure that her initials are not published, this cannot be ensured.

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