Ramsay Hunt Syndrome Treated with Oral Acyclovir

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Introduction

Ramsay Hunt syndrome is an infectious cranial polyneuropathy caused by *Varicella zoster* virus infection. It is characterised by facial nerve paralysis associated with herpetic eruptions on the pinna, and is frequently complicated by vestibulocochlear dysfunction [1,2]. It has an incidence of 5 in 100000 [3]. Compared with Bell's palsy the severity of facial paralysis in this syndrome is worse and its prognosis poorer. The antiviral agent acyclovir is currently used for treatment of Ramsay Hunt syndrome, but its effects on facial nerve and hearing recovery remain controversial. The present case report aims to highlight the beneficial effects of instituting early oral acyclovir, resulting in faster recovery and decreasing the long term sequelae of this syndrome.

Case Report

40 year old lady presented with painful vesicular lesions on her right ear of two days duration. One day prior to admission she had developed inability to close her right eye, facial asymmetry and drooling of liquids from right angle of mouth. She also gave history of painful swallowing of solids of one day duration. There was, in addition, history suggestive of tinnitus and decreased hearing in the right ear.

Vital parameters on clinical examination were normal. Central nervous system (CNS) examination revealed vesicular lesions involving her right pinna and external auditory meatus (Fig 1). Right tympanic membrane was intact. There was associated sensory hearing loss in right ear. Oral cavity examination revealed presence of ulcers on her soft palate, pharynx and right faucial pillar (Fig 2). There was in addition, complete right infranuclear facial palsy (Fig 3). A clinical impression of Ramsay Hunt syndrome was made. Investigations showed normal haematological and biochemical parameters. Test for HIV was negative.

Treatment was started with oral acyclovir 800 mg, five times a day within 48 hours of onset of symptoms. This was given for seven days along with supportive care. She showed good response with healing of lesions involving the pinna, external auditory meatus and oral cavity over next 48 hours (Fig 4). She was on follow up for twelve months during which she showed recovery of her facial nerve function. She had minimal residual facial palsy in form of

slight asymmetry of facial movements at the end of her follow up. However, she experienced no post herpetic neuralgia or hearing loss.

Discussion

Ramsay Hunt syndrome was first described by Ramsay Hunt in 1907 as a syndrome of facial paralysis, ear pain and herpetic auricular rash [1]. It has long been known that it is caused by reactivation of *V zoster* virus. Ramsay Hunt suggested that the syndrome was due to geniculate ganglionitis. But it is now thought to represent a neuritis or cranial polyneuropathy.

The diagnosis of Ramsay Hunt syndrome is based on the following clinical findings : severe pain and small vesicles in the external auditory meatus, and adjacent pinna and a rapidly, developing facial paralysis. Oral lesions are also present in most cases. Frequently, there is involvement of eighth cranial nerve producing hearing impairment and vertigo. Involvement of cranial nerves V, IX, X, XI and XII occurs less frequently. Laboratory confirmation of the clinical diagnosis is based on increasing antibody titre in repeated complement fixation tests.

The antiviral drug acyclovir 9 (2 hydroxy ethoxyl methyl) guanine is a specific virostatic drug. It was developed in England in 1977 for treatment of *Herpes simplex*. It is a nucleotide analogue that interferes with herpes virus DNA polymerase and inhibits DNA replication. Thus acyclovir is effective only against viruses that are replicating. It has been found useful in treatment of Ramsay Hunt syndrome.

Uri et al treated 5 patients with intravenous acyclovir (15 mg/kg) for five to eight days with three showing complete recovery [4]. Dickens et al in their study of 7 patients treated with intravenous acyclovir achieved complete response in 57% of patients [5]. Murakami et al in a large study involving 80 patients used a combination of intravenous/oral acyclovir with prednisolone for 7 days [6]. In 53% of patients complete recovery was achieved. They confirmed that oral and intravenous acyclovir were equally effective [6]. Response in all these studies were related to timing of therapy. Best results were obtained when acyclovir was

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Fig. 1 : Vesicular lesions right pinna

Fig. 2 : Ulcers on soft palate

instituted within 72 hours of onset of symptoms. In our patient oral acyclovir was instituted within 48 hours of onset of symptoms resulting in early healing of herpetic lesions, no post herpetic neuralgia or hearing loss and minimal residual facial palsy on follow up over one year was found.

Acyclovir offers an exciting option of treating what

Fig. 3 : Right infranuclear facial palsy

Fig. 4 : Healed oral lesions

can be a seriously debilitating disease. Oral acyclovir 800 mg five times a day, for seven days, to be instituted at the earliest is recommended.

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