A rare case of Ramsay Hunt syndrome that involved cranial nerves IX and X, but not VII or VIII

Yuichi Hasegawa, Shusaku Tomiyama, Kenichi Nakamura, Masatomo Kiyota, Hiroshi Imura, Tadashi Nakajima

Introduction:
Ramsay Hunt syndrome is triggered by reactivation of latent varicella-zoster virus (VZV) in the geniculate ganglion. The condition typically presents as a vesicular rash (shingles) on the auricles, and with symptoms of injury of cranial nerves (CNs) VII and VIII, such as dizziness, hearing loss, tinnitus, and facial paralysis. However, there are rare cases in which the neurological deficits are additionally associated with other CNs. Here, we report such a case of Ramsay Hunt syndrome with involvement of CNs IX and X, without any characteristic signs associated with that of CNs VII or VIII.

Case Presentation:
The patient was a 68-year-old woman with an unremarkable medical history. One week prior to our encounter, she felt pain in the left ear and throat. A local doctor diagnosed her with upper respiratory tract inflammation, and scheduled her for a follow-up. However, not only her left ear pain and sore throat persisted, but she also developed dysphagia and hoarseness of voice. At this point, she visited our hospital for an examination. Redness and vesicular lesions were observed on her left auricle; similar lesions were observed on her laryngeal fibers. Vocal cord immobility and laryngeal pooling were also noted on the left side. VZV antibody testing revealed a positive result. Considering this in conjunction with the dermatological findings, we diagnosed her with Ramsay Hunt syndrome. We subsequently started a 7-day course of oral valacyclovir.

Consequently, her sore throat and auricular redness disappeared. The vesicular lesions in her throat also disappeared, as revealed by the follow-up laryngoscopy. Unfortunately, her left vocal fold immobility and hoarseness did not improve. The vocal cord paralysis is often intractable, and thus, requires a long-term follow-up. Our hospital will continue to monitor this case on an outpatient basis.

Discussion:
We observed a rare case of Ramsay Hunt syndrome, which involved CNs IX and X, but not CNs VII or VIII. There are reports of cases of Ramsay Hunt syndrome that were associated with polyneuropathy, such as palsy of the glossopharyngeal and vagus nerves, without the classic paralysis of the facial and vestibulocochlear nerves. The early diagnosis of the disease is difficult when neurological symptoms precede the classic dermatological signs. Examining the oropharyngeal cavity of patients with the chief complaints of sore throat or ears is a crucial opportunity to diagnose and treat Ramsay Hunt syndrome at an early stage.