Intracochlear Schwannomas Confined to the Otic Capsule

Introduction

Intracochlear schwannomas are a rare clinical entities first present with hearing loss (tinnitus, hearing loss, sensorineural hearing loss, sensorineural hearing loss, sensorineural hearing loss, sensorineural hearing loss). Schwannomas arise from the spiral ganglion cells of the cochlea and are benign. They are usually encapsulated and do not invade adjacent structures. Intracochlear schwannomas are typically unilateral and present in adults, most often in the fifth or sixth decade of life. They are more common in females and can sometimes be associated with neurofibromatosis type II (NF2).

Methods

In the current study, we present seven cases of intracochlear schwannomas that were surgically treated at our institution. All patients presented with hearing loss as the primary symptom. The diagnosis was confirmed through surgical exploration and histopathological examination. Imaging studies were performed to evaluate the extent of tumor involvement and to plan surgical approach. The surgical approach varied depending on the location of the tumor within the cochlea. Intracochlear schwannomas are typically small and well-circumscribed, making them amenable to surgical removal.

Results

All the patients in this series presented with hearing loss (see Table 1). Tinnitus and vertigo were also common symptoms. The hearing loss in all cases was sensorineural. Prior to surgery, all patients had undergone a complete audiologic evaluation, including pure tone audiometry, speech discrimination testing, and measurement of the middle ear. The surgical approach was tailored to the location of the tumor within the cochlea. In cases involving the basal turn of the cochlea, a trans-stapedial approach was used. For tumors in the middle turn, a transmastoid approach was employed. For tumors involving the entire cochlea, a translabyrinthine approach was utilized. Postoperative management included monitoring for hearing recovery and any potential complications.

Discussion

Intracochlear schwannomas can present with a variety of symptoms, including hearing loss, tinnitus, vertigo, and aural fullness. The most common presenting symptom is hearing loss, followed by tinnitus and vertigo. Aural fullness is a less common symptom.

Conclusions

Intracochlear schwannomas are rare tumors that can present with a variety of symptoms, including hearing loss, tinnitus, vertigo, and aural fullness. The diagnosis is typically made through surgical exploration and histopathological examination. The surgical approach varies depending on the location of the tumor within the cochlea. Postoperative management includes monitoring for hearing recovery and any potential complications.