INTRODUCTION

Meningioma accounts for 13 - 26% of all intracranial tumors.1 The occurrence of intracranial meningioma extending into extracranial areas is relatively uncommon.2 These extracranial sites include the orbit, temporal bone, oropharynx, infratemporal fossa and sinonasal tract.3 These patients with extracranial meningioma usually present various head and neck manifestations.3,4 Serous otitis media or nasopharyngeal mass has also been described, but both of them exhibiting simultaneously has never been reported previously.5,6

We hereby report a case of an unexpected huge petroclival meningioma extending into infratemporal fossa mimicking serous otitis media and causing a nasopharyngeal mass.

CASE REPORT

A 22 years man presented with right aural fullness and hearing impairment for one year. Otoscopy showed middle ear effusion in the right ear and nasopharyngoscopy revealed a protruding mass on the right side of the nasopharynx. Computed tomography of the nasopharynx showed a large intracranial tumor extending to the infratemporal region via foramen ovale. The patient received staged surgeries and final pathology was diagnosed as meningioma. Approximately 20% of all intracranial tumors are meningiomas and only about 2% of these occur in the petroclival region. Although most meningiomas are benign and asymptomatic, they can cause head and neck manifestations as extending through a skull foramen, across a cranial suture or through a tumor-induced bone defect. Radiographic evaluation is required to rule out this rare clinical entity.


DISCUSSION

Meningioma rarely appears as a simultaneous extracranial manifestation of serous otitis media and a nasopharyngeal tumor.5,6 Despite the large size and extensive involvement of the tumor of our patient, there were no intracranial symptoms (such as ataxia, vertigo or nausea) or other neurological deficits.

Initially, nasopharyngeal tumor was impressed; thus, Computed Tomography (CT) of the nasopharynx was arranged. The CT findings accidently demonstrated an extensive heterogeneous lesion involving the right temporal lobe, cerebellar hemisphere, and brainstem and extending extracranially to the infratemporal region and sphenoid sinus (Figure 2).

The patient was operated at another tertiary hospital where Magnetic Resonance Imaging (MRI) findings were consistent with the diagnosis of petroclival meningioma. At first, he underwent a supratentorial tumor excision by the neurosurgeon and the pathology was diagnosed as meningothelial meningioma (WHO grade-I). After 3 months, following the first surgery, right facial numbness and limited right eye movement to the lateral side were noted. Second-stage surgery was performed with retrosigmoid approach for Simpson Grade-II tumor resection. On follow-up, 2 years later at that hospital there were no signs of expansion of the tumor.
Axial view of CT of the nasopharynx showed a bulging over the Coronal view of contrast-enhanced Nasopharyngoscopy showed a protruding mass (arrows) with petroclival meningioma. Common presenting and mean age is around 50 - 60 years old in patients. Only about 2% of meningiomas occur in the petroclival region. The gender distribution is female predominant. Two-step approach is suggested for surgical removal of petroclival meningiomas with large supratentorial extension. This patient has undergone staged surgeries. Surgical resection is generally the optimal treatment for all subtypes of meningiomas; however, the resection of petroclival meningiomas is the most challenging and carries a relatively high surgical morbidity and mortality. Numerous surgical approaches have been applied to resect petroclival meningiomas depending on the size and location of the tumor, which include transpetrosal, retrosigmoid, orbitozygomatic, frontotemporal and subtemporal approaches. Two-step approach is suggested for surgical removal of petroclival meningiomas with large supratentorial extension. This patient has undergone staged surgeries including supratentorial tumor excision and retrosigmoid approach for Simpson Grade-II tumor resection and complicated with right abducens palsy. He was regularly followed up for 2 years without tumor expansion.

REFERENCES