

Recurrent Temporal Meningioma as Exophytic Mass from the External Auditory Canal

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A 30-year-old female patient was diagnosed with right medial sphenoid wing meningioma when she was evaluated for her headache and dizziness. She underwent

craniotomy and excision and, biopsy showed grade 1 microcystic meningioma with an MIB-1 labeling index of 1 to 2%. Her follow-up magnetic resonance imaging (MRI) at

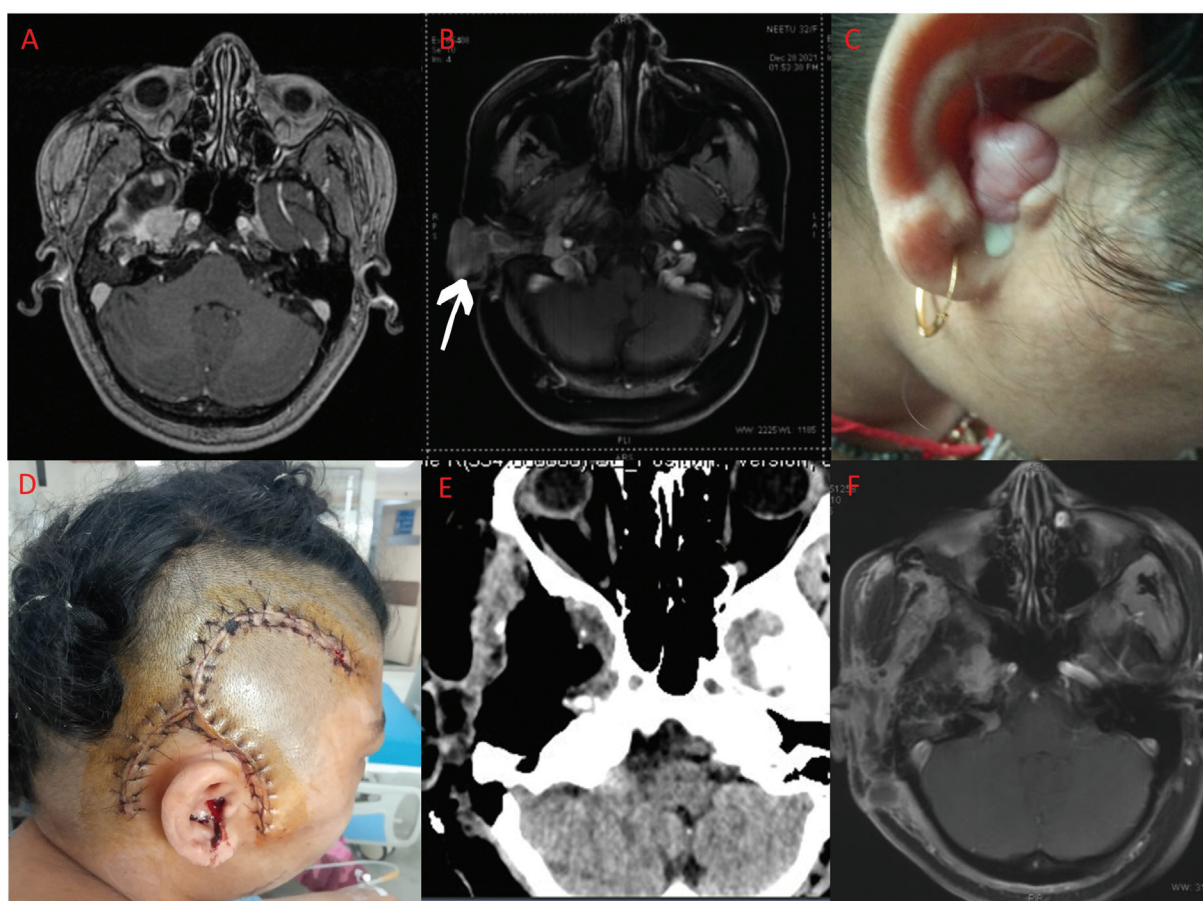


Fig. 1 (A) Pre GKRS CEMRI showing recurrent tumor in Meckel's cave. (B) Two years of follow-up CEMRI showing extension of the tumor and protrusion into the middle ear and external auditory canal. (C) Preop patient image showing a lobular mass with surrounding purulent discharge. (D) Postop image showing planned incision. (E and F) Immediate postoperative CT and 3-month postoperative CEMRI, respectively, showing a near total excision of the lesion.

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2 years showed recurrence of the lesion and she was referred to our hospital for gamma knife radiosurgery (GKRS). On examination, she had 30 to 40% sensory loss along the distribution of the right trigeminal nerve. She had a 1.3 × 1.7 cm intensely enhancing globular extra-axial lesion along the right temporal convexity with extension to Meckel's cave and abutting the right trigeminal nerve (► **Fig. 1**). She underwent secondary GKRS with a dose of 12 Gray. She subsequently noticed a globular mass protruding out from her external auditory canal with associated purulent foul-smelling discharge and had conductive hearing loss (► **Fig. 1**). Computed tomography (CT) and Contrast enhanced magnetic resonance imaging (CEMRI) scan of the temporal bone showed a lobulated extra axial mass causing erosion of the petrous bone and tegmen tympani with extension to the middle ear, mastoid antrum, and external auditory canal. Intracranial meningiomas extending into the middle ear and subsequently into the external auditory canal are extremely rare. Kusunoki et al noted a case of recurrent sphenoid wing meningioma extending into the middle ear in a 74-year-old female patient.¹ Reitz et al suggested that intracranial

meningiomas can enter the middle ear through various routes such as petrous pyramid, tegmen tympani, internal auditory canal, jugular fossa, and canal for greater superficial petrosal nerve. In our case, the likely path of spread would be the tegmen and petrous pyramid.² She underwent preauricular subtemporal transzygomatic approach and near total excision of the lesion by the ENT department and biopsy proved to be meningioma again.

Conflict of Interest

None declared.

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