

A very rare case of middle ear adenoma in a pediatric patient

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Introduction: The aim of this paper is to present a very rare case of a benign middle ear tumor in a 17-year-old girl, which manifested as sensorineural hearing loss and tinnitus. Only four cases of this tumor have been reported until now in the pediatric population. Middle ear adenoma is a rare benign epithelial tumor arising from the mucosal cells of the middle ear, exhibiting both epithelial and neuroendocrine features. The most frequent symptoms are conductive hearing loss and tinnitus. Surgical excision is the recommended treatment. A major concern described in literature is the potential for tumor recurrence. The occurrence of this tumor in pediatric patients is extremely rare, with only four cases of middle ear adenoma with neuroendocrine differentiation reported to date. **Material and methods:** We present the case of a 17-year-old female patient with tinnitus and sensorineural hearing loss in the left ear. Pure-tone audiometry revealed a high-frequency sensorineural hearing loss in the left ear, with normal hearing in the right ear. Due to the suspicion of retrocochlear pathology, an MRI of the temporal bone and brain was performed. Imaging revealed an 8 × 5 mm mass located in the middle ear. Surgical exploration was undertaken, during which the tumor was excised and the ossicular chain was preserved. Intraoperatively, no bony erosion of the labyrinth was observed. Histopathological analysis confirmed the diagnosis of middle ear adenoma. Sensorineural hearing loss has previously been described only in cases where labyrinthine erosion was present. In this case, the etiology of high-frequency sensorineural hearing loss remains unclear. **Conclusion:** Middle ear adenoma is a very rare tumor, particularly in the pediatric population, with only four cases reported to date. Radiological imaging is essential for accurate diagnosis. Surgical excision is the treatment of choice, and long-term follow-up is necessary due to the high risk of recurrence.

Key words: middle ear adenoma, hearing loss, tinnitus