A Case of Spontaneous External Auditory Canal Cholesteatoma

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Abstract: External auditory canal cholesteatoma (EACC) is a disease that is characterized by desquamating tissue and bone erosion. EACC is a disease with a postoperative or post-traumatic etiology, secondary to stenosis of the external auditory canal or, very rarely idiopathic (spontaneous or primary). Clinically, Primary external auditory canal cholesteatoma presents with nonspecific symptoms but many patients can be silent or even asymptomatic. We are presenting a case of spontaneous EACC extending in attic and mastoid treated surgically by canal wall down mastoidectomy with meatoplasty.

Keywords: Cholesteatoma, External Auditory Canal, Spontaneous, EACC

1. Introduction

The external auditory canal cholesteatoma (EACC) is an uncommon disease that affects 1 per 1000 new patients with otologic complaints.¹ It is characterized by the erosion of the external auditory canal (EAC) bone portion by proliferation of the adjacent squamous tissue. It can be iatrogenic, post-traumatic or, more rarely, spontaneous. Clinically, patient may present with otorrhea with chronic dull pain but many patients can be silent/asymptomatic.²,³ Hence, EACC may be a dangerous entity with a serious destruction but few or no symptoms. Here presenting a case of spontaneous EACC extending in to attic and mastoid treated surgically by canal wall down mastoidectomy with meatoplasty.

2. Case Report

A 26-year-old woman presented with a history of intermittent left ear pain, ear fullness of 2 month duration. No history of previous ear disease, significant trauma, or surgery was present. Physical examination - otoscopy revealed firm painful mass in the left External Auditory Canal (EAC) which prevented tympanic membrane visualization. Pure tone audiometry showed mild conductive deafness. A computed tomography (CT) scan of the temporal bone revealed a soft tissue mass in the left external auditory canal extending in to attic with ossicles pushed medially (Fig. 1). Erosion of the posterior, inferior wall of the EAC was noted. The antrum of the left mastoid other air cells appeared normal (Fig. 2). The middle ear cavity reduced on left. With a differential diagnosis of keratosis obturans/EACC patient was taken up surgery under general anesthesia. With Post aural approach EAC opened first keratosis seen then cholesteatoma sac was identified in the EAC. When we followed sac it was pushing tympanic membrane medially (Fig. 3). Extending into attic through eroded posterior wall. Complete sac was removed, canal wall reduced. Mild erosion of vertical part of facial canal noted. The ossicular chain was intact, mastoid air cells were normal (Fig. 4). Temporalis fascia graft used to cover raw area and meatoplasty done. Post-operative period was event free and the cavity healed well. Patient was discharged on 7th day of surgery. Patient has been on regular follow-up for 1 month with well healed cavity and free from presenting symptoms (Fig. 5).

3. Discussion

The first description of the EACC was made by TOYNBEE in 1850, but the precise definition of this disease was obtained by PIEPERGERDES et al., in 1980, when the differentiation between EACC and keratosis obturans was made.⁴,⁵ Cholesteatoma confined to the EAC is extremely uncommon and its pathogenesis remains unclear.

EACC have been categorized into several types, including the rare primary or idiopathic type as well as secondary types related to EAC stenosis, chronic inflammation, trauma, post-surgical, and post-radiation causes.⁶,⁷,¹³ There are many reported series describing secondary cases of EACC but only a few reports of primary unilateral cholesteatomas.⁶,¹³ Our patient was a primary case, as there was no history of previous ear disease, significant trauma, or surgery. Suggested risk factors for the development of primary EACC include disruption of the local microcirculation by...
The EACC is an uncommon affection that is part of the differential diagnosis of chronic otalgia and otorrhea. The treatment is especially surgical and the follow up is clinical and exceptional. The evaluation of the lesion and surgical planning must be done after performance of CT of temporal bones.

References


**Author Profile**

Dr. Ajitha Kumara received M.B.B.S. degree from K.S.Hegde Medical Academy Mangalore during 1999-2005 and M.S. degrees in ENT from G.R. Medical College Gwalior during 2008 and 2011. Working as Assistant Professor in Department of ENT Sri Muthukumaran Medical College & Research Institute Chikkarayapuram Chennai since 2011.