

Squamous cell carcinomas arising in seborrheic keratosis of external auditory canal: unusual situation

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Abstract: We report an unusual case of seborrheic keratosis (SK) of the right external auditory canal in 78-year-old female patient, revealed by right malignant otitis externa and caused impaired hearing, by obstructing the external auditory meatus. Surgical removal of lesion was performed and histopathological examination revealed association of SK with invasive Squamous cell carcinomas. We also reviewed and discuss the aetiology, clinical and histopathological features and treatment strategy of these disfiguring lesions.

Keys words: Seborrheic keratosis, external auditory canal, malignant otitis externa, Squamous cell carcinomas

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I. Introduction:

Seborrheic keratosis (SK) is one of the most common, benign skin lesions in the elderly; it can be located anywhere on the skin except the palms and soles, but external auditory canal involvement is extremely rare [1]. Although most of SKs are benign, rare cases can develop into malignant lesion, especially if they appear at an uncommon location and its size increases suddenly [2].

We report a case of patient in whom initially a diagnosis of Seborrheic keratosis was made, but that later proved to be Squamous cell carcinomas arising in seborrheic keratosis, and very few similar cases are reported in the literature. We describe the case with a review of the literature, in order to alert physicians to this uncommon occurrence.

II. Case report:

78-year-old female patient came to our Otolaryngology Emergency Department complaining of progressive stenosis of the right auditory canal for 2 months which caused impaired hearing associated with otalgia, purulent otorrhea and headache. She has received previously oral and local antibiotics, but the symptoms did not improve. She has a personal history of high blood pressure which was treated by antihypertensive drugs.

On examination the patient was febrile with temperature 38.2°C. She had a total obliteration of the external auditory canal by inflammatory exophytic mass, with swelling and redness of the concha and she presented a pain and a high sensitivity to auricular movement, and purulent otorrhea [figure 1]. She did not present facial palsy and there was no specific finding on the parotid region, cervical regions or other similar skin on the rest of the body.

On pure tone audiometry, she had sensorineural hearing loss with 40 db on the right and 20 db on the left.

Computed tomographic (CT) of the temporal bones showed a homogeneous soft density mass that totally occluded the external auditory canal with tympanic bony destruction and opacification of mastoid air cells. The tympanic membrane was intact. There were no radiologic findings of cervical lymphadenopathy.

Bacteriological analysis of purulent otorrhea revealed Staphylococcus Epidermidis. The patient was initially diagnosed with malignant otitis externa and treated with intravenous antibiotic; there was improvement of inflammatory symptoms but persistent ear pain and obliterated mass. Serology HIV was negative.

Excisional biopsy was performed and the histological analysis showed the aspect of Seborrheic keratosis with hyperkeratotic subtype [figure 2].

Subsequently, the patient underwent a surgical resection of the lesion with canaloplasty and intraoperative extemporaneous examination had confirmed the benign nature. However, definitive histopathological analysis has confirmed association of SK with invasive Squamous cell carcinomas. Patient has refused Cervical Lymphadenectomy and was referred to oncology department to start radiotherapy. The evolution is satisfactory after a 6 month of follow-up.

III. Discussion:

Seborrheic keratosis is a common benign, pigmented cutaneous lesion that develops from the accumulation of normal keratinocytes between the basal layer and keratinizing surface [1]. The pathogenesis of SKs is not well understood and it is multifactorial. Factors include older age, ultraviolet light exposure, human papillomavirus infection, chronic skin infection and genetic predisposition [3].

SKs of ear are very rare. The greatest series reported in the literature include only 7 patients, with 6 were located in EAC and one in auricle [4].

SKs may clinically mimic both premalignant and malignant lesions, and on close visual inspection, there are no clinical pearls that might differentiate from these lesions. Mostly, they appear as sharply demarcated, tan to brownish in color and has a slightly raised, verrucous surface with soft and friable consistency [5]. SKs are usually asymptomatic, but sometimes they are associated with irritation, itching, pain, or bleeding and redness. In rare cases, its increasing of size on EAC can cause loss of conductive hearing loss [6]. In our case, inflammatory episodes of SKs have promoted the appearance of malignant otitis externa, and it was also a cause of impaired hearing.

Histopathologically, SKs have characterized findings including acanthosis, papillomatosis, hyperkeratosis, horn cysts and horn pseudocysts. There are seven different histological subtypes: acanthotic, hyperkeratotic (also verrucous), adenoid, clonal bowenoid, irritated, and melanoacanthoma [7]. The most common histologic type of SK in the ACE is reported as acanthotic [6].

Even though SKs are well known to be benign but the association of malignant neoplasms arising contiguous with or adjacent to these lesions has been previously reported and is not exceptional [2]. It should be considered when a lesion undergoes an unusual or abrupt change in size or color. In our report, there was an association of SKs with invasive Squamous cell carcinomas, but other associations were reported including in situ change (Bowen's disease), basal cell carcinoma, malignant melanomas, keratoacanthoma [2,7,8].

Kim and al found one on seven cases of SKs of ear, were associated with basal cell carcinoma [4].

Aetiologic factors that have been proposed to explain these exceedingly rare occurrences have included prolonged sun damage and chronic low dose radiation exposure. Also it was reported that this incidence is more higher in elderly patients with history of immunosuppression, particularly those who had received an organ transplant [8,9].

The treatment of choice in SKs is removal of the lesion using one of the available methods including curettage, cryotherapy, ablative laser, use of topical vitamin D, and complete excision [4, 11]. For lesions in the ear canal, excision is the preferred therapy with histological examination of lesion. In malignant lesions, the treatment should be completed by cervical lymphadenectomy and radiotherapy according to stage of tumor.

Routine follow-up after the first treatment is essential, even if there will not have an association with malignant lesion on definitive histopathological examination, because SKs present a high risk of recurrence and possibility of malignant degeneration.

IV. Conclusion:

SKs of external auditory canal are extremely rare. They occur in elderly and it is often asymptomatic but it can cause hearing loss and repetitive otitis externa. An association with malignant skin tumors has been reported, but rarely in external auditory canal. Clinicians should always be kept in mind for this occurrence especially in case of refractory malignant otitis externa and they should consider complete removal with histological examination.



Figure 1: Inflammatory and obliterant mass of right external auditory canal with swelling and redness of concha

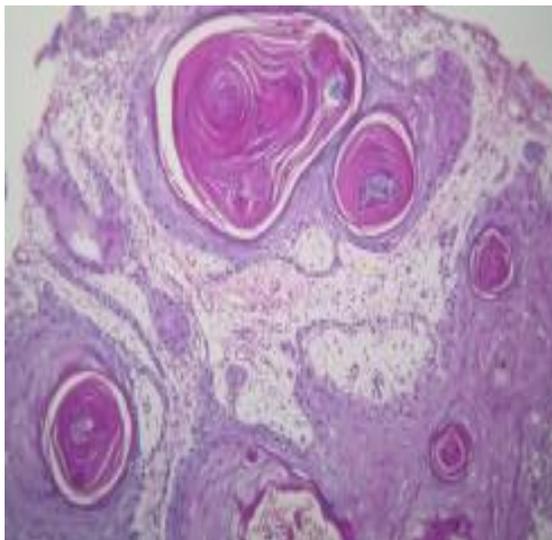


Figure 2: Histological appearance of Seborrheic keratosis: hyperkeratotic subtype, with papillomatosis, horn cysts and pseudocysts

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