Transcanal endoscopic excision of squamous papilloma of the external auditory canal

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Abstract

Squamous papilloma of ear canal is not very common finding. It Caused by lowrisk Human Papilloma Virus (HPV) subtypes 6 and 11. Other sites such as nose, nasopharynx, pharynx, larynx, and tracheobronchial tree is relatively common. Mostly diagnosed by clinical examination. Treated by complete surgical excision with normal surrounding skin to avoid recurrence. Histopathological examination is important as risk of malignant transformation. Follow-up is very important due to high recurrence rate. Here we presenting a case report of squamous papilloma of external auditory canal was treated by local excision under local anesthesia and followed up for 1 year and there was no recurrence noted.

Keywords: Squamous papilloma, external ear canal papilloma, Human papilloma virus

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I. Introduction

Squamous papillomas are caused by the Human Papilloma Virus (HPV), a DNA virus of the Papovaviridae family.¹ Aural papilloma is a relatively rare condition, unlike papilloma of the nose, nasopharynx, pharynx, larynx, and tracheobronchial tree.²⁻⁵ Caused by Human Papilloma Virus (HPV) subtypes 6 and 11, transmission likely occurs from skin to skin or through contaminated surfaces. Small erosions and microtraumas can allow the virus to enter the skin or from another individual or by self-inoculation rather than through sexual contact or vaginal delivery.⁶ The patient may present with aural discomfort, itching and, conductive hearing loss, impacted wax in case of a large papilloma completely occluding the ear canal. Diagnosis is mainly by clinical examination. The effective treatment is complete surgical excision to avoid recurrence. Follow-up is very important as malignant transformation has also been reported. Other options include cryosurgery, electrodesiccation with or without curettage, and carbon dioxide laser.^{7,8}

We report the first case of an external ear canal squamous papilloma in the Northeastern states of India, which was managed by surgical excision followed up for 1 year, and there was no recurrence.

II. Case Report

A 14-year-old female came to OPD with a chief complaint of itching in the left year for 3-months. There was no otorrhoea, hard of hearing, or earache. She had no history iin the past or other medical problems. Physical examination revealed a single pedunculated mass with numerous finger-like projections at the surface seen on the floor of the left ear canal (Fig. 1). The bony ear canal and the tympanic membrane were normal. Facial nerve function was normal. On rigid telescopic laryngeal examination was normal.

The patient was treated with surgical excision under local anaesthesia. The lesion was excised along with 1 millimetre of normal skin (Fig. 2). There was no aural cartilage or ear canal bone involvement, and the base was cauterized with bipolar diathermy. The excised specimen was sent for histopathological excision. Ear canal packed with antibiotic ointment soaked gauze wick. Histopathology sections showed polypoidal tissue lined by a stratified squamous keratinized epithelium with enlarged hyperchromatic nucleus having an irregular nuclear membrane with perinuclear halo which was suggestive of koilocytes. (Fig. 2). Complete healing was achieved after 4 weeks. The patient followed up for 12 months. During this period, there was no recurrence seen.

III. Conclusion

Squamous papillomas are caused by the human papilloma virus (HPV), a DNA virus of the Papovaviridae family.² Aural papillomas are generally associated with HPV types 6 and 11. Clinical presentations of HPV infection are various; common warts, vulvar or oral papilloma, epidermodysplasia

verruciformis, keratoacanthoma.⁹ Squamous papillomas typically present as single pedunculated masses with numerous finger-like projections at the surface.¹⁰ Upper aerodigestive tract is the most commonly affected in the head and neck region. However, there have been no transmission reports from lesions arising in the aerodigestive tract to the EAC. But there was one case was reported transmission of HPV infection from nasopharynx to middle ear and ear canal through the pharyngotympanic tube.¹¹ Although rare, malignant change of these lesions in the EAC has been reported. HPV subtypes 16 and 18, the presence of chronic otitis media, are associated with an increased risk of malignancy.¹² For this reason, histopathological examination of the excised specimen is a must. Koilocytes can be seen in papilloma associated with HPV infection. Koilocytes are indicative of and specific for HPV infection.¹³ However, in our case, despite the specimen being positive for koilocytes, HPV typing was not done due to the unavailability of the testing in our facility. The treatment of squamous papilloma is mainly surgical. It is necessary to perform a complete resection of the lesion to prevent recurrent disease. Removal of the papilloma may be undertaken in one of several ways, including cryosurgery, carbon dioxide laser resection, electro dissection with or without curettage. Extensive resection leads to scarring and stenosis of EAC, which can be prevented by antibiotic aural packing.

We conclude that squamous papilloma is common in the head and neck region but rarely reported in the external ear canal. Diagnosis is mainly by clinical examination treated by surgical excision. Recurrence is rare when excised completely. However, a histopathological examination is needed to confirm the diagnosis and rule out malignant transformation.

Acknowledgements

Nil

Conflict of interest

Nil

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Figure 1: Otoendoscopic picture of left ear canal papilloma



Figure 2: Excised specimen



Figure 3A, 3B: Light microscopic picture 40X and 400X magnification H&E stain. In Fig 3A, White arrows show papillary projections, and in Fig 3B black arrowheads show koilocytes (enlarged hyperchromatic nucleus having an irregular nuclear membrane with perinuclear halo).