

(CASE REPORT)



SQUAMOUS PAPILLOMA OF THE EXTERNAL AUDITORY CANAL: A RARE BENIGN NEOPLASM WITH BILATERAL PRESENTATION FROM NORTHEASTERN PART OF INDIA—A CASE REPORT AND COMPREHENSIVE REVIEW OF LITERATURE

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ABSTRACT

Background: Squamous papilloma is a benign epithelial tumor which is most commonly seen in the oral cavity, larynx, and skin. Its occurrence in the external auditory canal (EAC) is extremely rare, with bilateral presentation in rarest case.

Case Presentation: This is a case report of a 34-year-old male from the north eastern part of India who presented with foreign body sensation and aural fullness in both ears for 4-5 months. He was examined and found to have multiple small papillomatous growth in both external auditory canal. He was diagnosed as a case of Growth Bilateral EAC and underwent Excision under LA. Post op HPE revealed it as Squamous Papilloma.

Conclusion: Squamous papilloma of the external auditory canal is a rare benign neoplasm linked to HPV infection. The tumor typically presents unilaterally in middle-aged adults but can, as shown in this case, it can also present bilaterally. Diagnosis relies on clinical suspicion combined with histopathological confirmation. Surgical removal is the main treatment, with excellent prognosis.

Keywords: Squamous Papilloma, External Auditory Canal

1 INTRODUCTION

Squamous papilloma is a benign epithelial tumor characterized by papillary or warty growths of stratified squamous epithelium. It is most commonly seen in the oral cavity, larynx, and skin. Its occurrence in the external auditory canal (EAC) is extremely rare, with most knowledge derived from limited case reports and small case series worldwide.(1,2,3)

1.1 Epidemiology and Demographics

Squamous papilloma predominantly seen in middle-aged adults and shows no significant sex predilection. Most of the reported cases describe unilateral involvement of the EAC. Geographic clustering seen in southern China, where local aggressive ear-cleaning practices using unsterilized instruments have been implicated. However, cases have also been reported sporadically across various regions including India, South America, and Europe, indicating a wider global distribution. (1,3)

This is a case report of a 34-year-old male from the north eastern part of India. He presented with foreign body sensation and aural fullness in both ears for a period of 4-5 months. He has chronic habit of using ear buds. He gave no history of otalgia, otorrhea, decreased hearing. He had no known comorbidities and no significant family history. No history of similar complaints in the past. He was examined and found to have multiple small papillomatous growth in both external auditory canal and clinically diagnosed as a case of Growth Bilateral EAC (Fig 1,2) . He underwent Excision under LA. Post op HPE revealed it as Squamous Papilloma (Fig 3,4).

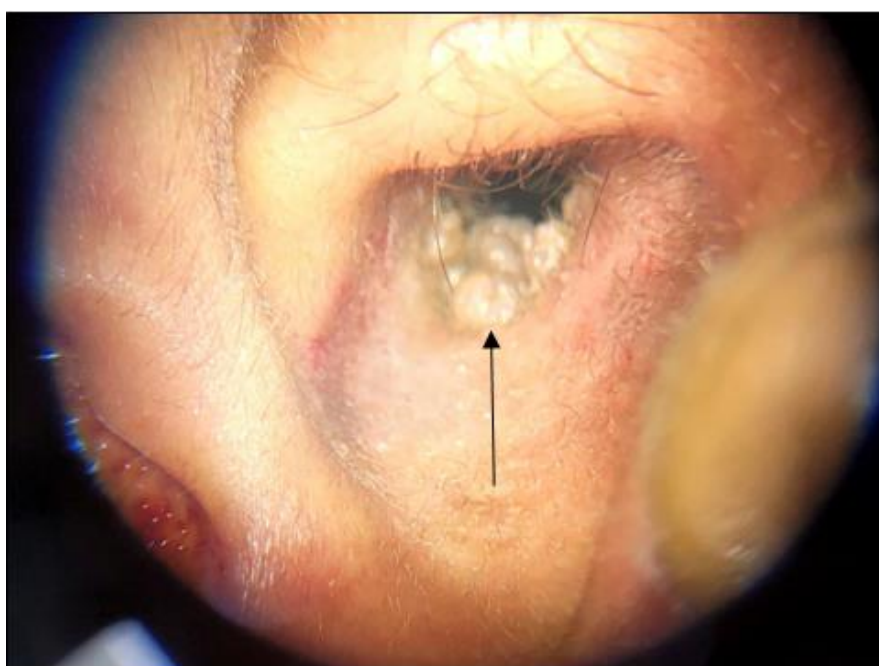


Figure 1: Black arrow – multiple small papillomatous growth in Right EAC

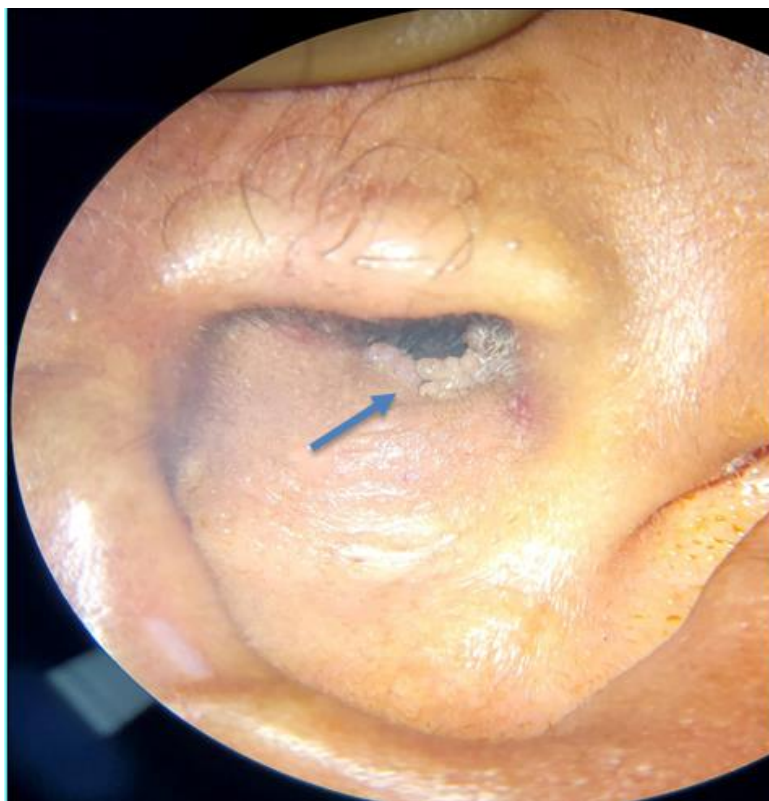


Figure 2: Blue arrow - multiple small papillomatous growth in Left EAC

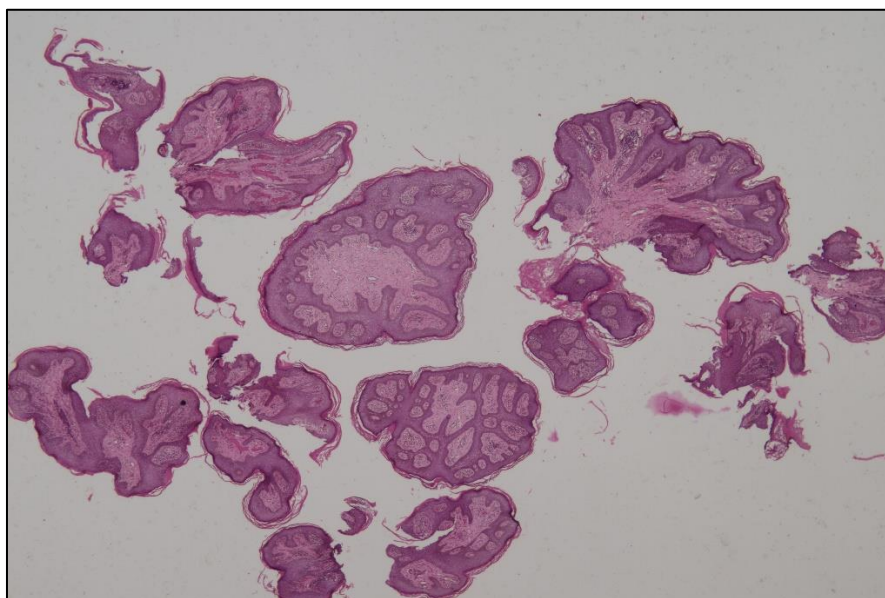


Figure 3: H&E 20x

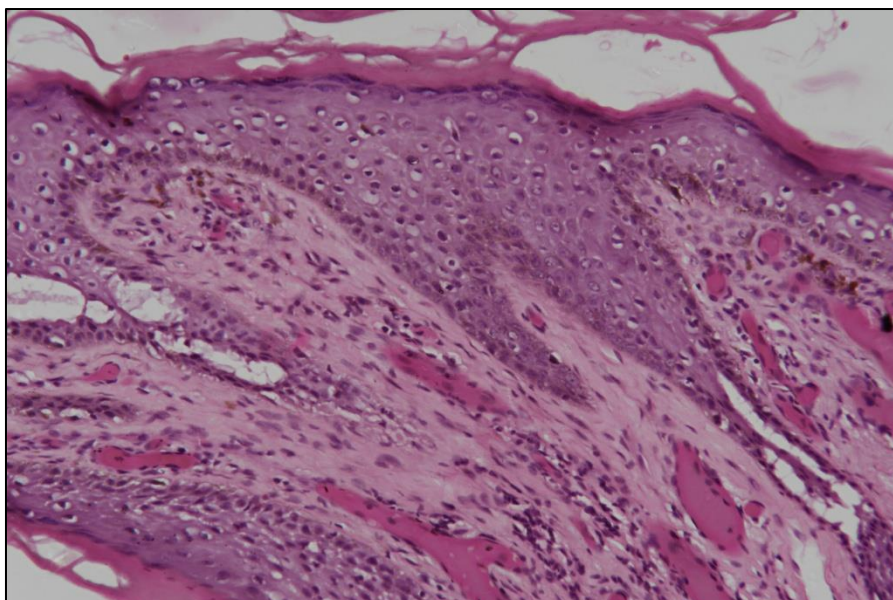


Figure 4: H&E 200x

Fig 3, 4 - Panel of microscopic images from the lesion showing features of squamous papilloma in form of papillary projections of stratified squamous epithelium with fibrovascular core. Epidermis also shows hyperkeratosis and acanthosis with koilocytic change characterized by squamous cells with perinuclear clearing, peripherally condensed cytoplasm and raisin like nucleus.

2 DISCUSSION

Patients usually present with vague complaints such as ear itching, aural fullness, or feeling of foreign body sensation in the ear. Growths are often found incidentally during an ear examination or when symptoms worsen. The lesion typically appears as a small, distinct growth that is either papillary or wart-like, coming from the canal wall or the skin of the outer ear. In this case, the patient reported a sensation of something foreign and fullness in both ears for four months. This matches the symptoms noted in literature, although the involvement of both ears is unusual. (1,2,3)

2.1 Etiology and Pathogenesis

Human papillomavirus (HPV) infection, particularly with low-risk types 6 and 11, is the predominant etiological factor implicated in development of squamous papilloma. Viral-induced epithelial proliferation results in the characteristic papillary pattern. Chronic local irritation and trauma, including habitual ear cleaning, also appear contributory but less consistently supported. The significance of HPV infection is reinforced by histopathology and in some cases, molecular HPV typing. (1,2)

2.2 Diagnostic Work-up

Though imaging features are non specific , high-resolution computed tomography (CT) provides information regarding extent of lesion and bone involvement. Definitive diagnosis relies on histopathological examination of excised tissue, which confirms the presence of papillary projections of well-differentiated stratified squamous epithelium with central fibrovascular cores and absence of malignant features.(1,2,3)

2.3 Management and Prognosis

Surgical excision under local anesthesia is the treatment of choice. It has excellent prognosis in almost all cases. Alternative modalities such as cryotherapy, electrocoagulation, and laser ablation have been described in select reports. Recurrence is infrequent but possible, especially when excision is incomplete. Malignant transformation has been reported in rare instances, necessitating careful histopathologic evaluation and ongoing postoperative surveillance. (1,2,3)

In this patient, complete excision of bilateral EAC growth under local anesthesia was done. Post op Histopathological examination confirmed squamous papilloma with no dysplasia or malignancy. Postoperative follow-up showed no recurrence, consistent with previous reported cases.

3 CONCLUSION

Squamous papilloma of the external auditory canal is a rare benign neoplasm linked to HPV infection and possibly to ongoing chronic local irritation. The tumor typically presents unilaterally in middle-aged adults but can, as shown in this case, it can also present bilaterally. Diagnosis relies on clinical suspicion combined with histopathological confirmation. Surgical removal is the main treatment, with excellent prognosis.

Reporting of these cases raises awareness of this uncommon entity, especially rare presentations like bilateral involvement and those found outside known high-prevalence zones. This helps in early detection , appropriate treatment, and a better understanding of its etiopathogenesis.

This case adds to the limited but growing body of evidence indicating the lesion's possible bilateral occurrence and wider geographic prevalence. Bilateral presentations remain rare in published literature, underscoring the uniqueness and clinical interest of this case.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Statement of informed consent

Informed consent was taken from this patient.

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