

# Intradermal Naevi of External Auditory Canal: Unusual location with a unique presentation

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## SUMMARY

**The incidence of intradermal nevus in the external auditory canal is uncommon. We herein are describing a case of 60-year-old lady who presented with foreign body sensation in the right external ear canal (EAC) with mild discomfort and ear bleed during ear picking. Otoscopic examination revealed hyperpigmented mass on the floor of the outer two third of EAC. Complete excisional biopsy of the mass resulted in histopathology findings of intradermal nevus. Despite the fact that the disease is not alarming, the possibilities of benign melanocytic nevi transformation into malignant lesions such as melanoma need to be ruled out.**

## INTRODUCTION

Nevus is a Latin medical term used to describe a sharply circumscribed skin lesion.<sup>1</sup> Melanocytic nevi (MN) is defined as a benign neoplasm consisting of nests of melanocytic cells located in the epidermis, dermis and rarely subcutaneous tissue.<sup>1,2,3</sup> It is the most common type of skin tumour and it can occur on any parts of the skin. However, the occurrence of nevus in the external ear canal (EAC) is rarely described.<sup>3</sup> We herein are report a patient with hyperpigmented mass in EAC who presented with foreign body sensation, mild ear discomfort and ear bleed.

## CASE REPORT

The patient is a 60-year-old lady who came to our outpatient clinic with complaints of feeling like there was a foreign body in her right ear canal which is associated with ear discomfort for one-year duration. She also complains of minimal bleeding from her right ear, each time she cleaned her ears with cotton bud or during ear picking. However, she does not experience any hearing loss, any form of ear discharge, otalgia, ear block or earache. The findings on physical examination of head and neck were unremarkable except for the presence of a mole over the left cheek. The otoscopic examination of the right EAC revealed the presence of a soft, hyperpigmented, dome shaped mass at posterior aspect of cartilaginous portion of the right EAC (Fig. 1). The mass did not occlude the EAC, allowing visualisation of an intact tympanic membrane beyond it. Pure tone audiometry showed normal hearing. The mass was removed surgically via wide excision under general anaesthesia. The wound was

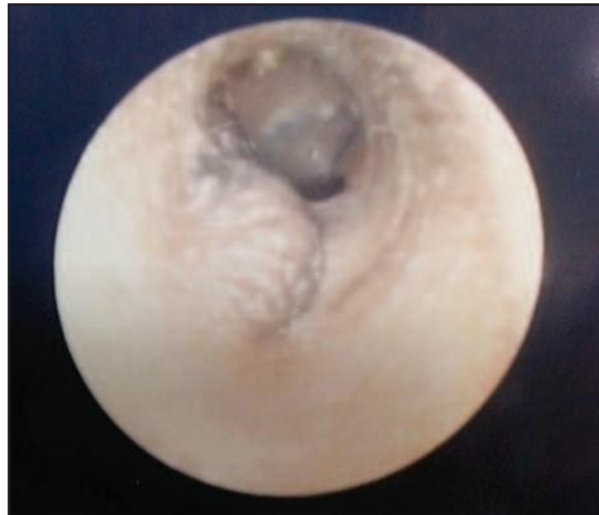
allowed to heal by secondary-intention healing. The intraoperative finding revealed a greyish black mass at the posterior aspect of EAC, measuring 0.8cm x 0.5cm. Histopathological finding of the mass showed intradermal proliferation of nevus cells predominantly arranged in sheets, nests and occasionally in cells singly (Fig. 2). The nevus is composed of polygonal, lymphocyte-like and spindle shape cells with neurotisation seen in areas. No junctional activity, nuclear atypia or mitosis seen. This confirmed its origin as intradermal nevus of right EAC. Upon subsequent follow up, the wound healed well with no evidence of recurrent growth.

## DISCUSSION

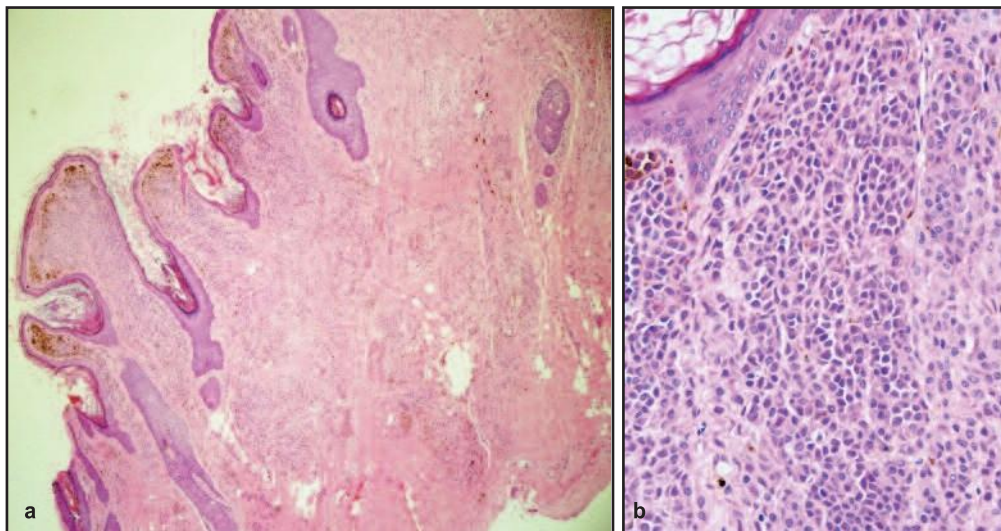
Melanocytic nevus (MN), also known as pigmented nevus, nevocytic nevus, or common mole is clinically one of the most common benign skin neoplasms. It is a well circumscribed benign malformation of the skin and mucosa. It has homogeneous surface and coloration pattern, round or oval shape, regular outlines, and relatively sharp borders.<sup>1</sup> The acquired nevi may begin to appear in childhood with a peak in the fourth decade.<sup>1</sup> The factors contributing to the prevalence of acquired MN is possibly related to environmental factors including excessive exposure to sunlight and also genetic susceptibility.<sup>1</sup>

Melanocytic nevus are recognised by the presence of nevus cells but differ from ordinary melanocytes by being arranged at least partially in clusters.<sup>2</sup> It can be categorised as junctional, compound or intradermal. However, it has been suggested that this classification actually describes the normal development pattern of MN which begin as junctional nevi and over time, descend into the dermis and ultimately end up within the dermis.<sup>2</sup>

Clinically, five macroscopic types of MN has been described which include flat lesions, slightly elevated lesions, halo, verrucous lesions and dome like lesion.<sup>1,2</sup> Depending on its size, intradermal nevi in EAC may present as aural obstruction and subsequently conductive hearing loss. The obstruction can cause accumulation of water in the EAC and then lead to recurrent episodes of acute external otitis. Our patient presented with foreign body sensation in the right ear canal which was associated with ear discomfort and bleeding each time she cleaned her ears.



**Fig. 1:** A soft, hyperpigmented, dome shaped mass at posterior aspect of cartilaginous portion of the right EAC.



**Fig. 2a & b:** Histopathological finding of the mass showed intradermal proliferation of nevus cells predominantly arrange in sheets, nests and occasionally in cells singly. The nevus are composed of polygonal, lymphocyte-like and spindle shape cells with neurotisation seen in areas. No junctional activity, nuclear atypia or mitosis seen.

While most MNs are benign and do not require treatment, its potential to be a malignant lesion should not be underestimated. Hence, surgical excision is recommended in MNs for histopathology confirmation especially with suspicious clinical features such as atypical appearing central nevi, presence of an asymmetric halo, eccentric placement of a melanocytic nevi, and familial or personal history.<sup>1</sup> Furthermore, unlike MNs in the other regions, large nevi in EAC may cause complications like EAC cholesteatoma, inflammations and hearing loss. Apart from malignant melanoma, other differential diagnoses include freckles, seborrheic keratosis, senile keratosis, dermatofibroma, solitary fibrous tumor, Kaposi's sarcoma, pseudoepitheliomatous hyperplasia and squamous cell carcinoma.<sup>1,2,3</sup>

## CONCLUSION

Intradermal nevi of EAC are considerably rare but difficult to assess due to its hidden nature. The possibility of malignancy should not be underestimated. It is important to pathologically confirm all symptomatic nevus looking mass by excision biopsy or when all of its features cannot be observed.

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