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# "Black Mole Blocking the Ear Hole": Multiple Differentialscrossing the Mind

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**Abstract**

*Lesions on the external ear belong to variety of medical disciplines. Anything that ranges from a simple papule to a complex macule, erosive endophytic to destructive exophytic growth should not be neglected as it can be either inoffensive benign disorder to detrimental carcinogenic condition. Here, have come across a patient with an external ear condition which has not just been long-standing in nature but also seem to have been deliberately ignorant of its existence.*

**Keywords:** *external ear, carcinoma, benign,neoplastic, cutaneous, skin lesion.*

## Introduction

External or outer earis not just a part of the sound conducting system but also forms an important part of the facial contour and cosmesis.As outer ear forms a crucial part of the facial silhouette, lesions on the external ear make them prominent and notable. Any lesions on the external ear belong to diverse medical inter-disciplinaries. The lesions can include anything betweena meek papule to anintricate macule and also could be erosive endophyticgrowth to destructive exophytic growth which if neglected can be either lead toinnocuous benign illness to harmfuloncogenicmalady[1,4].

## Case Report

63 year old elderly male incidentally seen in the medical camp presents with growth in the outer aspect of left external auditory canal since over 30 years now. He gives history of decreased hearing in the left ear and aural fullness for which he never underwent any evaluation till date. He gives no complaints of otalgia,otorrhoea or bleeding, any itching present over this growth. He gives no history of tinnitus, giddiness, facial asymmetry. He gives no history of increase in the size of the growth or any change in colour of the growth over the years. Patient is not having much of a concern with respect to this growth as it has no pain or any bleeding or increase in size of the growth over the years. There are no associated nasal or oral complaints to offer. None of the other family members have similar history. There is no history any skin ailments in family or any systemic illness.

On clinical examination, patient was stable and comfortable with vitals within normal limits. There were no abnormal findings detected on systemic examination. On local otoscopicexamination as depicted in**(Figure 1)** of the left earpolypoidalgrowth was seen occupying the left external auditory canal, blocking the opening of the canal completely. This hyper-pigmented growth which was roughly about 1X1 cm was seen spread discretely all around the external auditory meatus moreover the conchal region looking adhered to the underlying skin and unable to mark its origin. This dark coloured flat macule showed variegated colours with irregular borders having indentations and notches.This growth had irregular surface looking "warty like" in nature, which did not bleed on touch, not mobile with no discharge seen from the growth. The growth was insensitive to touch with mild tenderness noted on deep palpation/pressure. The tympanic membrane could not be visualised in the left ear. This growth was

only limited to left ear. There was nothing significant in the right ear. Nose and Throat examination showed no abnormal findings.

Patient was asked to come for consultation to ENT OPD for further intervention, as there was a plan for Biopsy under Local anaesthesia. But, unfortunately patient did not turn up for further evaluation.

**Figure1.** *Showing the hyper-pigmented growth in the conchal region of the left ear*

## Discussion

While evaluating cutaneous skin lesions on the external ear, specific anatomical uniqueness should be considered. The outer ear consists of skin bearing external ear canal and auricle which is elastic cartilage covered with skin. This is attached to periosteumhaving poor vascularity. The epidermis on the concave side of outer ear lies on the thin subcutis which is attached to auricular cartilage. In contrast, convex side of outer ear has a thicksubcutis with layer of subcutaneous fat that leads to laxity and displaceability compared to the concave side[1,4]. An extrafunctionalexclusivity is high concentration of holocrineceruminal glands in theskin of external ear canal. The cerumen masks the current diseases of the skin at the entrance of external ear canal. In case of obstruction of the canal due to cerumen, acceptable assessment of auditory meatus is done only after aural toilet, which can demask existing dermatosis. The auricle is liable to environmental influences and trauma. Due to its bare localization, ear is particularly vulnerable to effects of UV light and hence leading to pre-neoplastic and neoplastic skin lesions[4].

With a sound-transmitting function at a noticeable, aesthetically apparent site, this draws considerable attention from the patient. Based on the localization, lesions of the external ear can lead the patient to seek professional help at the earliest. When hidden areas of the outer ear are affected, consultation may be delayed until late in the disease process. This is true for malignant tumors which may present at an invasive stage due to minimal thickness of skin compared to other parts of the body[1]. In many cases, optimal medical care for patients with skin diseases of external ear require an interdisciplinary approach Dermatological, Otolaryngological and Surgical association. Because of the large number of diverse diagnosis, a description of all pathologic conditions of external ear seems to be difficult. Here, are some of the probable differentials that runs through the mind when this clinical picture is thought about and the closest among them are mentioned below:

### Seborrhoeic Keratosis

It is one of the most common non-malignant tumor of the external ear. It is also called as Seborrhoeic wart, Senile wart, Basal cell papilloma. It appears as exophytic, papular, flat, lightbrown lesionthat originates from proliferative epithelial cells.The spread increases with age and can affect entire ear and also auditory canal. UVlight exposure, HPV infection,hereditary factors, action of oestrogen and other sex hormonesare those factors that include in the aetiology of this condition[11,18]. The occurrence of secondarymalignant changes is extremely rare. The varied treatment protocols ranges from use of TCA,cryotherapy to electrodessication, simple curettageor excisional surgery. It may be confused withmalignant melanoma or squamous cell carcinoma based on histopathological examination. Based on histological diagnosis, this lesion can be divided into 7 subtypes: Acanthotic,Hyperkeratotic, Adenoidal or Reticulated, Clonal,Irritated, Inverted follicular keratosis and Melanoacanthomavariants[4,13]. Among

them, irritated type of seborrhoickeratosis can be misdiagnosed as squamous cell carcinomaas they show active cellular appearancesand downward proliferation of active epithelial cells. Hence, biopsy should be sent forhistologic evaluation in cases of macroscopically suspiciouslesions which cannot be clearly evaluated as seborrhoeickeratosis[11,13,18].

## Malignant Melanoma

Around, 20%of all primary melanomas are located in head and neck region of which 7–14% are located at the ear's helix and antihelix. Peripheral parts of the external ear are more prone with affliction to left ear than right ear. The most accepted theory for this afflictionis the asymmetric UVdosage in anglo-saxoncountries with left-hand driven cars. Further, a male predisposition in fair-skinned individuals with an average is 50 years of age of nearly62-91% is reported in literature having an exception in young children[6,10,22]. It can also be explained with people with different hair styles which correlate with UV exposure. It presents as an asymmetric, flat, hyperpigmented lesionor raised nodular lesionwith change in color and size. Amelanotic (non-pigmented) variants exist as well. The 3 most described subtypes are the Superficial spreading melanoma, Nodular melanoma and Lentignomalignamelanoma[8,12,21]. Each type has a distinctivegrowth pattern with horizontal and vertical growth phase. All over the body, superficial spreading melanoma is the most common type showing an intermediate, radial growth phase before starting to invade the dermis[9]. A prolonged radial growth phase is characteristic for lentigomaligna melanoma. A study by Koh et al[20] showed8.3% of all head and neck lesions, lentigomaligna melanomas occur on the ear. It begins as a macular lesion with aninconstant pigmentation with arough,asymmetrical border which shows a sudden increase in size, induration and darkening of the lesion. The most destructivemelanoma type is nodular variant, which is dark pigmented nodule that is rapidly growing invading the dermis early in the disease course. The thin layer of subcutaneous tissue often contributes to uniqueintrusivenessand therefore bad prognosis for melanoma on the ear[12,21]. Key predictive features of auricular melanomas are subtype on histology, thickness of tumor, presence of ulceration and level of invasion. As per the Jahn et al[6] showed age, locality of lesion, thickness of tumor, histological subtype,level of invasion and excision margins are significantrisk factors for local recurrence. The overall survival of patients with melanoma on the ear depends on thickness of tumor and Clark level ofinvasion[15]. Treatment modalities are surgical therapyand adjuvant therapy. Recommended excision margins are 10–20 mm for primary nodular melanoma or superficial spreading melanoma and 5 mm with complete 3-Dhistology of excision margins for lentigomalignamelanoma[14,21]. A safety margin of 5 mm for melanoma in situ and 20 mm for melanoma which are >2 mm in vertical thickness according to World Health Association. Studies have shown that margins > 10 mm have lowest risk of recurrence. Of lately, more aggressive surgical approach has changed towards narrow excision margin has shown to have only an effect on occurrence of local recurrence and little influence on disease specific survival[8,15]. Literature suggests, that the available data for sentinel node sampling do not permit conclusiveassumptions regarding a prognostic or therapeutic effect of sentinel lymph node biopsy (SLNB) in patients with melanoma of the ear. Patients with 1mm thicker tumours are currently undergoing SLNB and should be included in large multicenter studies. In special cases, radiation therapy is prescribed as an alternative where surgical removal of lentigomaligna melanoma showing good results. Due to aggressive nature of this tumor, it is said to have a quick spread to regional lymph nodes and distant sites[6,16,22]. 1/3$^{rd}$ of patients with auricular melanoma have cervical lymph node involvement. Due to itscorrelation between location of thetumorand itsdrainage sites, melanoma is inconsistent in nature and hencelymphoscintigraphy with sentinel node sampling seems to be the primary method of identifying nodal disease. However, a final assessment is not possible and therefore adjuvant therapy includes chemotherapy, immunotherapy and radiation[9,14].

## Melanocytic Nevus

Melanocytic nevus is the one most common benign skin tumorthat can be found anywhere on the skin. Its presentation in the external auditory canal has been reported in <20 cases in the literature till date as in our case. Clinically, presents with aaural fullness, conductive hearing loss.foreign body sensation, otalgia, aural pruritus and excessive accumulation of wax, the first two as in our case[2,7].Most of the time, it is incidental in nature as in this case. Nevus has always been described as papillomatous, dome-

shaped, pedunculated or flat topped, pigmented, pink or flesh colored.Diagnosis of melanocytic nevi is based exclusively on histopathological examination as there is no pathognomonic clinical management. Histopathologically, includes presence of nevus cells which are melanocytes that are arranged partially in as clusters or nests. It can be further classified into Junctional, Intradermal and Compound. Melanocytic nevi clinically can be divided into 5 macrocytic types- Flat, slightly elevated lesions, Halo, Verrucous, and dome-like lesion[3,17]. In adults, Melanocytic nevi are of intradermal type, whereasjunctional variety in children.Radiological examination is of scarce value for diagnosing this entity as there are no pathognomonic imaging characteristics. Gold standard treatment in these cases remains surgical excision, hence examination under anaesthesia and polypectomy as melanocytic nevi can only be diagnosed after histop athologicalexamination[1,19]. As for our patient, she underwent a simple examination under anaesthesia along with polypectomy as it was done both for diagnostic and therapeutic purpose. Differential diagnosis for this entity includes viral warts, lentigo, seborrheic keratosis, dysplastic nevus, inflammatory polyp, squamous papilloma, and malignant lesions including malignant melanoma, basal cell carcinoma, and squamous cell carcinoma. However, unlike the usual melanoma which progresses over time, melanocytic nevi involute over time[3,7,19].

In our case, this most likely points towards Melanocytic nevi for the following reasons:

- Though was an incidental finding, in our case was a blackish polypoidal, papillomatous growth blocking the ear canalinclining more towards probablyIntradermal melanocytic nevus.
- Had a history since very long time, with no increase in size and no changes of malignancy noted in terms of the growth as per the history suggesting less chances for Melanoma.
- As occurrence of Melanocytic nevi is < 20 cases so far in literatureas it is one of the rare condition to have occurring in the external auditory canal, hence clinical find of it in a medical camp had to be documented and reported though no intervention was done.
- Our patient too had clinical presentation of aural fullness and decreased hearing.

## Conclusion

External ear can be affected by a variety of different skin lesions. They can be either solitary lesions with a local limitation or generalised widespread condition. They can affect skin, cartilage, glands, vessels and hair follicles of the external ear. The external ear plays anefficient role in auditory mechanism in both collection and transmission of sound waves. Additionally, it has an important effect on facial contour and cosmesiswith distinctpsychological temperament. Although, auricular skin macroscopically shares the similar anatomical and physiological features of the skin of the body with few histological alterations compared to the rest of the body skin. This precise functional distinctiveness should be consideredwhile treating skin lesions on the external ear. In conclusion, it is apt to have an interdisciplinary attitude that combines Otolaryngology, Dermatology, Surgery that can not only provide ideal care for the patient but also achieve an optimal outcome.

## References

1. Saniasiaya J, MdDaud MK, Ramli RR, et al. Aural melanocytic nevi presented as polypoidal mass. Indian Journal of Otology. Oct-Dec 2017; 23(4): 270-272.
2. Kim SH. A case of huge intradermal melanocytic nevus of the external auditory orifice. Otolaryngol Open J 2016;2:39-42.
3. Magliulo G, CiniglioAppiani M, Colicchio MG, Cerbelli B. Melanocytic nevus of the external auditory canal. OtolNeurotol 2012; 33:e29-30.
4. Sand M, Sand D, Brors D, et al. Cutaneous lesions of external ear. Head & Face Medicine. 2008; 4(2): 1-13.
5. Lee FP. Pigmented nevus of the external auditory canal. Otolaryngol Head Neck Surg 2006;135:124-8.
6. Jahn V, Breuninger H, Garbe C, Moehrle M: Melanoma of the ear: prognostic factors and surgical strategies. Br J Dermatol 2006, 154:310-8.
7. Kazikdas KC, Onal K, Kuehnel TS, Ozturk T. An intradermal nevus of the external auditory meatus. Eur Arch Otorhinolaryngol 2006;263:253-5.

8. Stevenson O, Ahmed I: Lentigomaligna: prognosis and treatment options. Am J ClinDermatol 2005, 6:151-64.
9. Dost P, Lehnerdt G, Kling R, Wagner SN: Surgical therapy of malignant melanoma of the external ear. HNO 2004, 52:33-7.
10. Cole MD, Jakowatz J, Evans GR: Evaluation of nodal patterns for melanoma of the ear. PlastReconstrSurg 2003, 112:50-6.
11. Konishi E, Nakashima Y, Manabe T, Mazaki T, Wada Y: Irritated seborrheic keratosis of the external ear canal. PatholInt 2003, 53:622-6.
12. Pockaj BA, Jaroszewski DE, Dicaudo DJ, et al.: Changing surgical therapy for melanoma of the external ear. Ann SurgOncol 2003, 10:689-96.
13. Rigopoulos D, Rallis E, Toumbis-Ioannou E: Seborrhoeic keratosis or occult malignant neoplasm of the skin? EurAcadDermVenereol 2002, 16:168-170.
14. Narayan D, Ariyan S: Surgical considerations in the management of malignant melanoma of the ear. PlastReconstrSurg 2001, 107:20-4.
15. Wagner JD, Park HM, Coleman JJ 3rd, Love C, Hayes JT: Cervical sentinel lymph node biopsy for melanomas of the head and neck and upper thorax. Arch Otolaryngol Head Neck Surg 2000, 126:313-21.
16. Davidsson A, Hellquist HB, Villman K, Westman G: Malignant melanoma of the ear. J LaryngolOtol 1993, 107:798-802.
17. Fitzpatrick TB. Dermatology in General Medicine. New York: McGraw Hill; 1993. p. 996-1005.
18. Murphy GF, Elder DE: Seborrheic keratosis. In Atlas of Tumor Pathology. Non-Melanocytic Tumors of the Skin, 3rd series Edited by: Rosai J. Washington DC: AFIP; 1991:13-19.
19. Cuce LC, FestaNeto C. Manual de Dermatologica. San Paolo: LivrariaAtheneuEditora, Rio de Janeiro; 1990. p. 428-31
20. Koh HK, Michalik E, Sober AJ, et al.: Lentigomaligna melanoma has no better prognosis than other types of melanoma. J ClinOncol 1984, 2:994-1001.
21. Byers RM, Smith JL, Russell N, Rosenberg V: Malignant melanoma of the external ear. Review of 102 cases. Am J Surg 1980, 140:518-21.
22. Arons MS, Savin RC: Auricular cancer. Some surgical and pathologic considerations. Am J Surg 1971, 122:770-6.


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