

## A Low Grade Malignant Melanoma: Pigmented Epithelioid Melanocytoma, Case Report Involving the Right Pinna

Noor Al-Hadi<sup>1\*</sup>, Soudeh Chegini<sup>2</sup> and Mahesh Kumar<sup>3</sup>

<sup>1</sup>Community Dental Officer, Hornsey Rise Health Centre, United Kingdom

<sup>2</sup>Registrar ST3, North London Deanery, Northwick Park Hospital, United Kingdom

<sup>3</sup>Consultant OMFS, Northwick Park Hospital, United Kingdom

\*Corresponding Author: Noor Al-Hadi, Community Dental Officer, Hornsey Rise Health Centre, United Kingdom.

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### Abstract

Pigmented epithelioid melanocytoma is a rare tumour which has previously been described as an ‘animal type’ melanoma. We presented here a case of an 88 year old Caucasian female with a longstanding heavily pigmented lesion of the right pinna. She was asymptomatic and did not exhibit any cervical lymphadenopathy. Histological diagnosis confirmed the lesion to be pigmented epithelioid melanocytoma with depth of invasion classified as Clarke’s level V and maximum depth of infiltration of 9mm. She underwent a right total pinnectomy with local flap closure under local anaesthetic and intravenous sedation. Oral and maxillofacial surgeons must be aware of pigmented epithelioid melanocytomas as a distinct subtype of melanoma. The management should be adjusted from conventional melanoma and must be discussed at multidisciplinary meetings to identify the best course of treatment for patients.

**Keywords:** *Pigmented Epithelioid Melanocytoma; Malignant Melanoma; Animal Type Melanoma; Melanocytic Tumor*

### Abbreviations

PEM: Pigmented Epithelioid Melanocytoma; ATM: Animal Type Melanoma

### Introduction

In August 2016, an 88-year-old Caucasian British female was referred to the Oral and Maxillofacial surgery department in Hillingdon hospital with a suspected melanoma of the right ear. There was a heavily pigmented lesion on the right pinna which had been growing for six years alongside two satellite lesions (Figure 1). The patient was not in pain and there was no ulceration, bleeding or lymphadenopathy. The patient has a history of dementia; her sister had also been previously diagnosed with melanoma.



**Figure 1:** Heavily pigmented right pinna with two satellite lesions.

A punch biopsy of the lesion found it to be consistent with ‘animal type’ melanoma. This was later surgically excised under IV sedation whereby a right pinnectomy and local flap reconstruction was performed using diathermy (Figure 2). The histology of the lesion found the dermis infiltrated to a maximum depth of 9mm (Clark’s level V), abutting underlying cartilage. The mitotic rate was < 1 per 10hpf and there was minimal lymphocytic response. Focal satellitosis was present and there was no evidence of a pre-existing naevus. No vascular invasion was identified. The histological conclusion was that of malignant melanoma, animal type, pT4b.



**Figure 2:** Right pinnectomy performed using diathermy under IV sedation.

## Results and Discussion

Pigmented epithelioid melanocytoma (PEM) is a term devised by Zembowicz, *et al.* in 2004 which has replaced ‘animal type melanomas’ and ‘epithelioid blue nevus’ [1]. The original term Animal type melanoma (ATM) was a rare lesion that was initially reported in the skin of grey horses in 1832 by Dick [2]. ATM is a rare subtype of melanoma with literature showing a higher incidence in the older population. It is uncommon for ATMs to exhibit aggressive characteristics; however there have been reports of metastasis to regional lymph nodes and distant sites such as the parotid gland and liver [3]. PEM is best considered as a borderline melanocytic neoplasm or a low grade melanoma with generally a better prognosis than conventional malignant melanomas. It generally tends to follow an indolent clinical course. Zembowicz, *et al.* conducted a clinical-pathologic analysis of 40 patients with PEM and found that the tumors had a wide distribution, mainly found on extremities. These lesions have also been reported on the trunk and head and neck [4].

Histopathologically, PEM tend to exhibit a wedge-shaped configuration and are composed of heavily pigmented dermal melanocytic tumor cells as well as epithelioid and spindled cells. Mitosis, though rare, can sometimes be seen [5]. Though the lesions have been described as less aggressive and more indolent in nature than conventional melanomas, full excision and long term monitoring are warranted given the low but potential risk of metastasis [6].

## **Conclusion**

Oral and maxillofacial surgeons must be aware of ATM as a distinct subtype of melanoma. The management of which should be adjusted from conventional melanoma. Treatment should be balanced against the comorbidities of the older patients, in which it is commonly found, and the indolent nature of the disease.

This highlights the importance of discussing all skin cancer at multidisciplinary team meetings to reach the best treatment management for patients. In this case, the patient was treated with a wide local excision and will be followed up for continued surveillance.

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## **Conflict of Interest**

There are no financial interests or conflicting interests.

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