

MALIGNANT MELANOMA OF THE PAROTID GLAND – PRIMARY OR METASTATIC ?

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ABSTRACT

Involvement of the parotid gland by malignant melanoma is rare. Parotid Metastasis from cutaneous melanoma is uncommon. Primary melanoma of the parotid gland is a controversial entity. A diagnosis of parotid gland malignant melanoma should herald a search for a primary skin neoplasm & this may be exceptionally difficult because of the well recognised though uncommon phenomenon of spontaneous regression of the primary melanoma. A 39 years old male presented with progressive painless enlargement of the parotid gland over the past seven months. Removal of the parotid gland was possible only on the second attempt. A detailed history revealed excision of a pigmented lesion on the contralateral cheek 20 years back. The tumour was a black heavily pigmented lesion with varied morphology. In spite of low mitotic count there was vascular embolisation. The margins were infiltrative. Patients with parotid gland melanoma have a high incidence of distant spread & significantly worse prognosis, requiring medical surgery.

Key Words: Melanoma, Parotid gland.

INTRODUCTION

Melanoma of the parotid gland is rare.^{1,2} It can occur as a primary disease¹ or metastases from cutaneous primaries from head and neck.² Primary melanoma of parotid gland is a controversial entity.^{3,4} This is the first case report from our institution.

CASE REPORT

A partially encapsulated globular black coloured firm lesion adherent to the left parotid gland (Fig. 1) measuring 3 x 2.5 x 2 cm was referred from outside for histopathology. The lesion had presented as a painless, progressively increasing swelling in the left parotid region for seven months. Swelling could not be removed completely in the first surgery performed

Fig. 1

Fig. 1 : Black coloured tumour with capsule (arrow) and invasion into parotid (arrow head).

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Fig. 2 (A)

Fig. 2(A) : Rounded, oval & polygonal cells with melanin pigment. H & E X 200

Fig. 2 (B)

Fig. 2(B) : Spindle cells with melanin pigment. H & E X 200

Fig. 3

Fig. 3 : Invasion of malignant melanoma cells with melanin into the parotid acini. Main tumour is seen on one side. H & E X 200

somewhere else. FNAC done outside from the left parotid swelling was reported inconclusive with a few dysplastic cells. Microscopic examination revealed evidence of previous surgery in the form of foreign body granuloma to suture material. The tumour showed varied morphology (Fig.2A & 2B). There were round, spindle & polygonal cells arranged in sheets, clusters & alveolar pattern with fibrous septae traversing. Prominent

nucleoli, a characteristic feature of melanoma was seen only focally. Survival pattern due to tumour outgrowing its blood supply was also seen. There was heavy, irregular brown black pigmentation. The tumour had invasive margins (Fig. 3). Though the mitotic count was low, lymphatic & vascular permeation was present.

Past history of removal of a pigmented lesion on contralateral side of face 20 years back was present, but no histopathology report on this was available. The patient was reexamined & did not have any pigmented lesion in the head & neck region, nor cervical lymph node enlargement.

DISCUSSION

Whether this is a case of primary or metastatic melanoma is debatable. Patient gave history of excision of a pigmented lesion on the right side of the face 20 years back. Nature of the excised lesion whether benign or malignant is not known. Melanomas are known to undergo regression.^{5,6} Our case may be a metastatic lesion from an excised/regressed primary. On the other hand, melanocytes have been demonstrated in the interlobular ducts of the parotid, which may give rise to primary melanoma.⁷ The definition of primary melanomas of the salivary gland remains controversial.³

Buss et al³ emphasized the difficulty in the diagnosis and classification of primary melanoma of the parotid and the need for destructive surgery. Our case could not be diagnosed on cytology done outside, showing only a few atypical cells. In spite of low mitotic counts there was vascular and lymphatic embolisation with infiltrating margins. Failure to excise the swelling at first attempt is attributable to its deep involvement.

Dense melanin pigmentation obscured the cytomorphological details of the tumour & bleaching by potassium permanganate had to be done to better appreciate the cell morphology. Pigmentation was present throughout the lesion, the density varying from light brown to black. Imaging is frequently done to look for metastasis. Brain is the most common site of metastasis but melanoma can metastasise to any structure in the head e.g. bone, muscle, nasopharynx, parotid, meninges, choroid plexus, internal auditory canal & the orbit. The radiologist needs to be aware of the varied appearances and the relatively ubiquitous sites of involvement to better detect these lesions.⁸

Schwippen & Scholze-Osthoff⁹ found parotid gland to be involved in 20% cases of metastatic melanoma of head & neck. O'Brien et al¹⁰ found melanoma metastatic to parotid gland significantly worsened the prognosis (40% survival at 5 years compared to melanoma specific survival of 64%). Patients with

melanoma of parotid gland with no other detectable primary have better prognosis than patients with metastasis from known primary.¹¹ This prognostic difference is explainable if the former group is taken as primary parotid melanoma.

Superficial parotidectomy with elective neck dissection is advocated for cutaneous melanoma metastatic to parotid.^{10,11}

CONCLUSION

A black coloured lesion in the parotid may be a malignant melanoma requiring destructive surgery. A search for the primary in the head and neck region should be made before diagnosing a primary melanoma of parotid gland.

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