Journal Homepage: -www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/18678
DOI URL: http://dx.doi.org/10.21474/IJAR01/18678

*RESEARCH ARTICLE*

# PRIMARY MALIGNANT MELANOMA OF THE PAROTID GLAND, A RARE ENTITY: A CASE REPORT

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## *Manuscript Info*

***Manuscript History***
Received: 05 March 2024
Final Accepted: 09 April 2024
Published: May 2024

***Key words:-***
Primary Malignant Melanoma, Parotid Gland, Adjuvant Immunotherapy, Polytherapy, Radiotherapy

## *Abstract*

The prevalence of primary malignant tumors of the salivary gland is 1 per 100,000 people. Most salivary gland tumors originate in the parotid gland (80%), of which 25% are malignant. Adenoid cystic carcinoma, mucoepidermoid carcinoma and acinar duct carcinoma are among the most common types of salivary gland cancer [1]. Around 25% of parotid tumors are metastatic, originating mainly in the head and neck region. The main metastatic tumors of the parotid gland are squamous cell carcinoma and malignant melanoma [2]. Parotid melanoma is generally secondary to a primary location on the skin of the head and neck. When its primary site cannot be found, we speak of primary melanoma of the parotid gland, an even rarer entity. Here, we report the case of a primary malignant melanoma of parotid gland in a 66-year-old male subject.



## Introduction:-

Primary malignant melanoma of the parotid gland (PMMPG) is thought to be very rare, accounting for less than 0.7% of all malignant tumors of the parotid gland, and recognition of its features is based mainly on sporadic case reports [3,4]. It is characterized by a poor prognosis, late diagnosis,and difficulty. Takeda in 1997 found melanocytes in the interlobular duct of the parotid gland during autopsy on a Japanese man; melanocytes derive embryologically from the neural crest and do not generally develop from salivary tissue [5].

Some melanomas may metastasize and regress, so that the metastasis and its primary source are not identified simultaneously.

## Observation:-

A 66-year-old man presented to our institution for a left pretragal swelling that had been present for 8 months. No other notable pathological was foundapart a 20-year history of vitiligo.

The history did not reveal any allergies, toxic habits (such as smoking, drinking) or other genetic disease.

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Physical examination found a firm, rounded, painless mass approximately 3 cm long, located in the left parotid region, fixed to the deep planes and mobile in related to the superficial planes. No other clinical signs were associated such as facialparalysis,or the presence of cervical adenopathy. (Fig. 1)

An MRI (Magnetic Resonance Imaging) performed to our patient showed a tumoral process of the left parotid with an iso signal on T1, heterogeneous hyper signal and regular contours on T2. (Fig. 2)

An initial diagnosis of pleomorphic adenoma was retained in the first instance given the clinical and radiological features.

After an informed consent from the patient, a left subtotal parotidectomy with preservation of the facial nerve branches was performed, with favorable postoperative results. No lymph node dissection was performed, as there was no clinical or radiological evidence of cervical invasion.

Histological examination with immunohistochemistry of the specimen led to the diagnosis of a parotid melanoma; in which anti PS100, anti-Melan A and anti HMB 45 antibodies were all positive.

To research other localizations and a primary tumor site, a series of exams were performed; it included a pan-endoscopy, CTAP scan, and a search for previous melanoma lesions that had spontaneously regressed by reviewing formal photos and all those exams were normal.

The patient was referred to the oncology department, where he was lost of sight before reappearing a year later.

A PET-Scan and cervico-parotid MRI were performed but not found any suspicious lesions either locally or remotely.

The patient is currently under close follow-up, and no indication of adjuvant treatment has been retained to date. (Fig. 3 and 4)

## Discussion:-

Melanoma is rarely diagnosed in parotid parenchyma or in parotid lymph nodes without an identifiable primary site.

To this end, some authors argue that this could result either from a regressed cutaneous melanoma of the head and neck with parotid metastases, or from a primary parotid melanoma derived from ectopic melanocytes within the parotid parenchyma [5, 9].

Nevertheless, primary malignant melanoma of the parotid gland is a diagnosis of exclusion. To make the diagnosis of primary melanoma of the parotid gland, Woodward et al. proposed that the following four conditions must be met:

1- Most of the tumor is contained in the parotid gland.
2- The tumor contains no identifiable lymph node tissue.
3- No evidence of other malignant melanoma (MM) lesions in the body.
4- No suspicious pigmented lesion or malignant melanoma resection.

The search for melanic lesions in the cephalic region as well as at a distance is essential and may even require consultation of previous photographs; around 10% to 35% of melanomas show regression and even disappear completely. [6,8]

Clinical signs are non-specific and can range from simple painless swelling mimicking benign pathology to facial paralysis with pain and integument involving as in other parotid malignancies [7].

Opinions differ in the management of parotid melanoma. Some authors recommend superficial parotidectomy and radiotherapy for superficial lobe involvement in metastatic parotid cancers, while others recommend total

parotidectomy and cervical dissection, given the possibility of occult invasion into the deep lobe in cases of known superficial lobe metastases [9,10].
Post-operative adjuvant therapy can reduce the risk of post-operative recurrence, and the main post-operative treatments reported are radiotherapy, immunotherapy, targeted therapy, interferon, and chemotherapy. [10,11]

The rate of local recurrence being around 30-50% of patients who do not receive adjuvant therapy after surgery, and 10-year overall survival (OS) is around 25-40%. [11]

In our case, a subtotal parotidectomy was performed from the outset, and given the absence of clinically and radiologically abnormal cervical lymphadenopathies, no principle was considered.

## Conclusion:-

Primary malignant melanomas of the parotid gland are extremely rare but have a poorer prognosis than metastatic melanomas. There is yet no clear consensus on their management, but there is a need for early detection and appropriate, sometimes radical, treatment to improve survival rates and quality of life.

It is therefore important to examine the entire skin in the presence of any parotid mass, in search of a possible primary lesion.

## Iconography

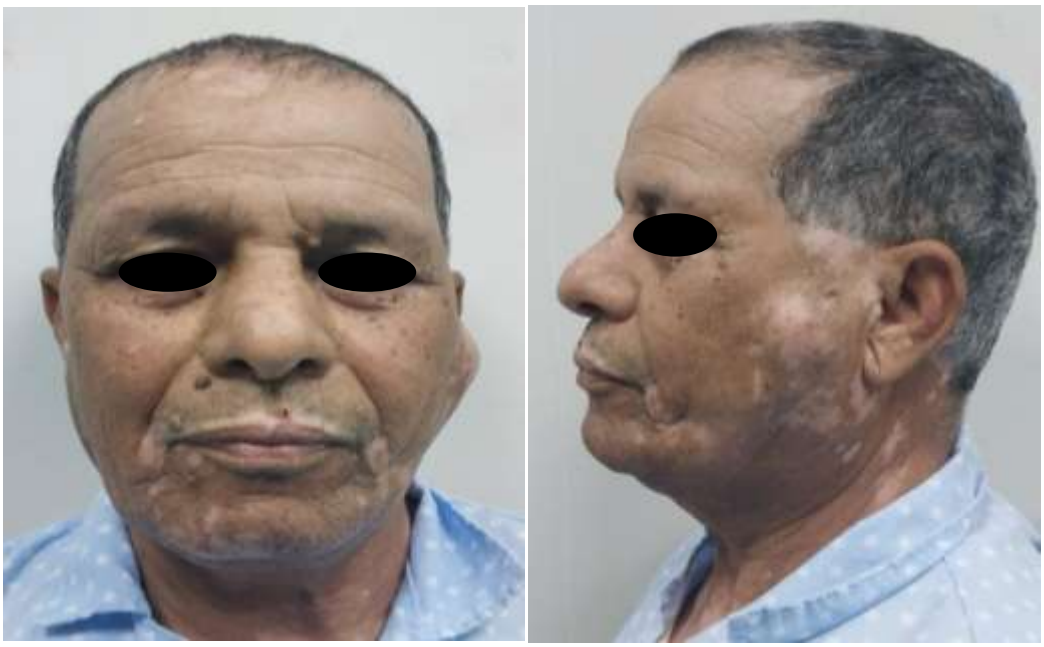

**Figure 1:-** Front and side views showing a mass in the left preauricular region.

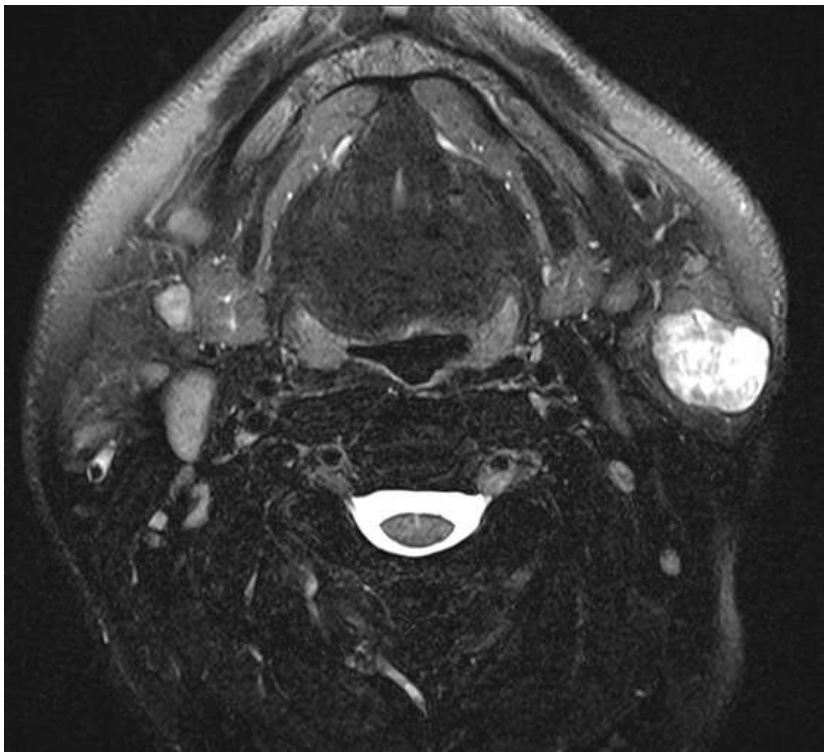

**Figure 2: -** MRI showing the parotid tumor with heterogeneous T2 hyper signal.

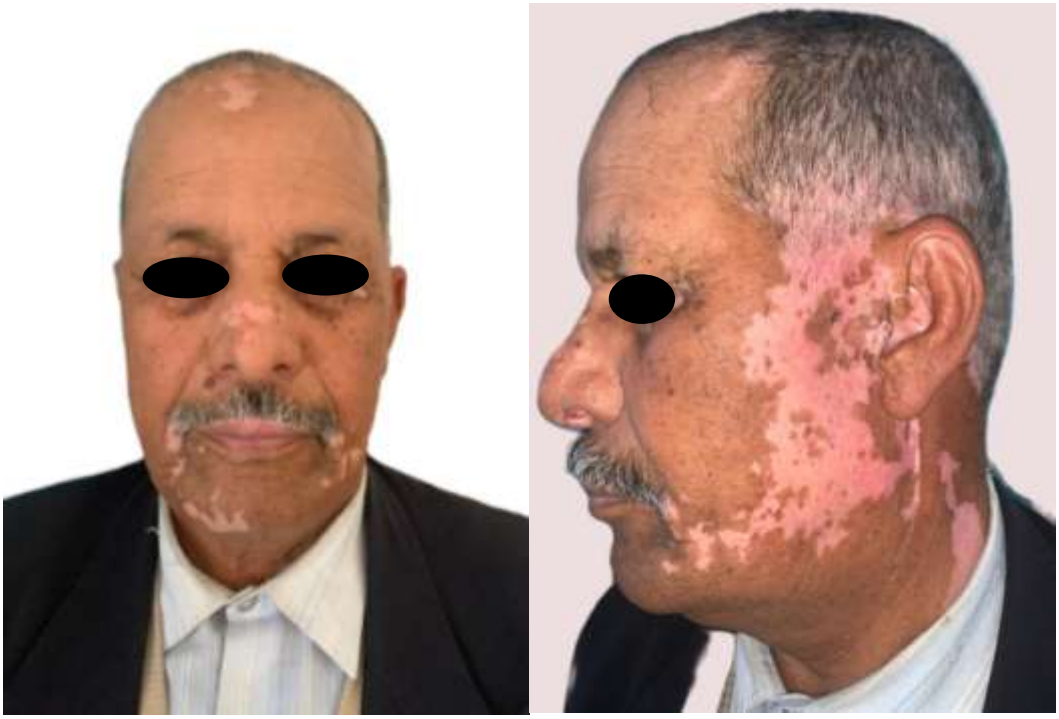

**Figure 3: -** Front and side views one year after surgery

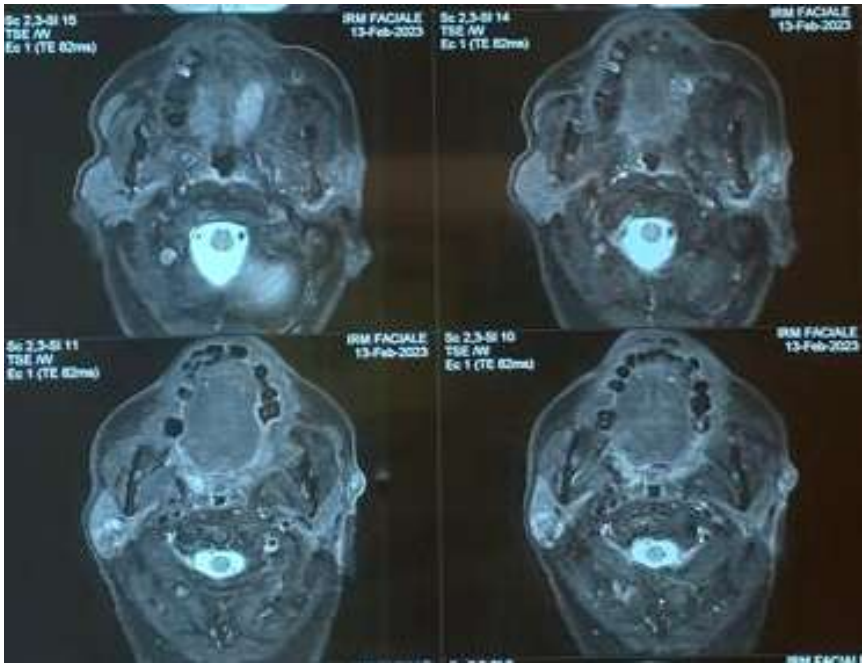


**Figure 4:-**One year after surgery control MRI showing a reworked aspect of the left parotid lodge without individualization of residual lesion.

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