Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Pathology

A Pigmented Malignant Tumor of Skin is not Always a Melanoma

M. Tbouda[1,3*], A. Miry[2,3], H. Aggouri[1,3], K. Oqbani[2,3], S. Abbaoui[2,3]

[1]Department of Pathology, Oued Eddahab Military Hospital, Agadir, Morocco
[2]Department of Pathology, University Hospital Center, Agadir, Morocco
[3]Faculty of Medicine and Pharmacy, Agadir, Morocco

DOI: https://doi.org/10.36347/sjmcr.2024.v12i12.048 | **Received:** 21.11.2024 | **Accepted:** 26.12.2024 | **Published:** 30.12.2024

***Corresponding author:** M. Tbouda
Department of Pathology, Oued Eddahab Military Hospital, Agadir, Morocco

Abstract **Case Report**

A few cases of pigmented squamous cell carcinoma have been reported in the literature. We report a case of pigmented squamous cell carcinoma with diagnosis confirmed by histological and immunohistochemical examinations. The differential diagnosis is with pigmented basal cell carcinoma and melanoma. We report in this article a case of pigmented squamous cell carcinoma whose diagnosis was confirmed by an anatomopathological study. The management of this type of tumor is based on wide excision.

Keywords: Pigmented, Squamous Cell, Carcinoma, Immunohistochemistry, Histology, Excision.

INTRODUCTION

Cutaneous squamous cell carcinoma is a common malignant tumor.

There are several histological variations. The pigmented subtype is very rare and often requires the use of an immunohistochemical study. A review of the English literature showed a frequency of 0.01-7% [1]. Other authors identified a higher prevalence, 7-25%, but this variation is due to the inclusion, in some series, of tumors with only small areas of pigmentation [2]. In 2009, the first case of PSCC was described in Brazilian literature [3].

We report a case of pigmented squamous cell carcinoma, through a review of the literature while emphasizing the difficulty of differential diagnosis with other pigmented tumors.

OBSERVATION

This is a 58-year-old patient with no particular history who has had a skin lesion on the face below the orbit for 6 months. This lesion is indurated, pigmented with thickened borders and a central ulceration. This lesion measures 2.2x1.2cm. All of this is developing in a context of general health.

The cervicofacial scan did not reveal any locoregional adenopathies or secondary localizations.

An excision of the lesion with 1 cm margins was performed. The specimen was sent to the pathological anatomy laboratory.

In the laboratory, macroscopic examination shows a skin excision managed by the surgeon and containing an ulcerated and pigmented lesion measuring 2.2x1.2cm. On section: it is hard and pigmented, poorly limited on the periphery and remains 1cm from all surgical limits.

On histological study, it is a carcinomatous tumor proliferation made of trabeculae and cellular cords within a desmoplastic fibrous stroma. The cells are polyhedral, medium to large in size and with eosinophilic but often pigmented cytoplasm. The atypia are pronounced with the presence of mitotic figures, sometimes atypical (Figure 1).

On Immunohistochemical Study: The tumor strongly expresses P63 and P40 antibodies (Figure 1). Melan A, HMB45 and PS100 antibodies are negative.

The diagnosis finally retained is a pigmented squamous cell carcinoma.
No adjuvant therapy was deemed necessary.
The patient is followed regularly according to a rhythm of a clinical examination every 6 months. The follow-up is 24 months without signs of detectable recurrence.

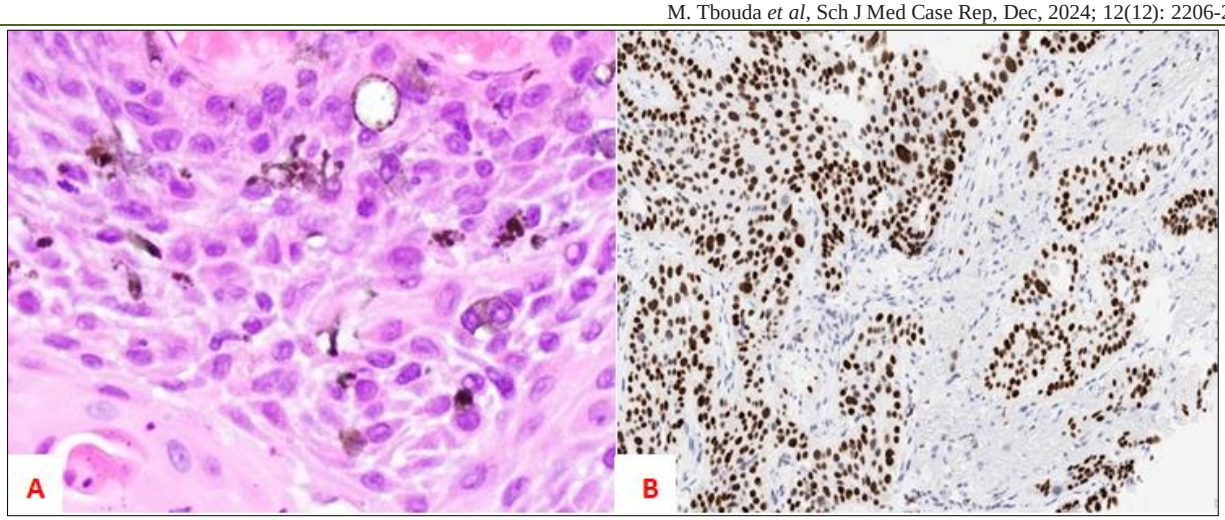

Figure 1: Carcinomatous tumor proliferation made of cellular cords with local presence of cytoplasmic pigmentation (HE x400) (A) The tumor strongly expresses the p40 antibody (B).

DISCUSSION

Cutaneous squamous cell carcinoma is a malignant tumor of epidermal keratinocytes or adnexal structures and its incidence continues to increase in recent decades [4, 5].

here are several histological variants of squamous cell carcinoma: verrucous, papillary, clear cell, acantholytic which poses a problem of differential diagnosis with adenocarcinoma and keratoacanthoma type squamous cell carcinoma.

Pigmented squamous cell carcinoma is a very rare variant and little described in the literature. In this variant a population of enlarged melanocytes intermingled with squamous cells which called pigmented SCC [6].

Pigmented squamous cell carcinoma (PSCC) is a rare variant of squamous cell carcinoma (SCC), characterized by the presence of melanin pigment within the tumor cells or stromal macrophages. Its rarity and unusual pigmentation often make it a diagnostic challenge, as it can mimic other pigmented lesions such as malignant melanoma, pigmented basal cell carcinoma, or seborrheic keratosis.

The pigmentation in PSCC is believed to result from: The phagocytosis of melanin by tumor cells or stromal macrophages.

Most of the cases of cutaneous pigmented SCC have been located in head and neck region which can be attributed to chronic UV exposure. Rosendahl C *et al*., Terada T *et al*., and Satter K *et al*., reported the cases with pigmented SCC of cheek in elderly people [7].

The diagnosis of this type of tumor is anatomopathological, based on a morphological study showing a carcinomatous tumor proliferation made up of trabeculae and cellular cords with the presence of pigmented cells. The authors believe that stimulation of melanocytes by several cytokines and growth factors produced from tumor cells is required for colonizing of melanocytes [8, 6].

The use of an immunohistochemical study is often necessary. It shows a labeling of tumor cells by the antibodies P63, P40 and CK5/6. The melanocyte markers are negative.

The prognosis is similar to that of squamous cell carcinomas.

CONCLUSION

Pigmented squamous cell carcinoma is a rare variant of squamous cell carcinoma. A few cases have been reported in the literature. The diagnosis is anatomopathological and is based on a histological study, often with the use of a complementary immunohistochemical study.

The treatment is surgical and is based on a complete excision of the lesion. The prognosis is similar to that of classic squamous cell carcinoma.

Conflicts of Interest: None.

REFERENCES

1. Satter, E. K. (2007). Pigmented squamous cell carcinoma. *The American journal of dermatopathology*, *29*(5), 486-489.
2. Carrasco, L., Fortes, J., Sarasa, J. L., Moreno, M. C., Izquierdo, M. J., & Saez, M. A. (2000). Carcinoma espinocelular cutáneo pigmentado: descripción de dos casos. Actas Dermosifiliogr, 91, 39-42
3. Jeunon, T., Vita-Campos, C. M., & Azeredo-Coutinho, R. B. (2009). Caso para diagnóstico. Carcinoma de células escamosas pigmentado da pele. An Bras Dermatol, 84, 293-5

4. Kallini, J. R., Hamed, N., & Khachemoune, A. (2015). Squamous cell carcinoma of the skin: epidemiology, classification, management, and novel trends. *International journal of dermatology*, *54*(2), 130-140.
5. Nuño-González, A., Vicente-Martín, F. J., Pinedo-Moraleda, F., & López-Estebaranz, J. L. (2012). High-risk cutaneous squamous cell carcinoma. *Actas Dermo-Sifiliográficas (English Edition)*, *103*(7), 567-578.
6. Dimitra, K., Vassiliki, Z., Maria, G., & Chrisoula, S. (2015). Pigmented squamous cell carcinoma of the lower back skin: a case report and review of the literature. *Pigmentary Disorders*, *2*(165), 2376-0427.
7. Rosendahl, C., Cameron, A., Bulinska, A., & Weedon, D. (2011). Cutaneous pigmented invasive squamous cell carcinoma: a case report with dermatoscopy and histology. *Dermatology practical & conceptual*, *1*(1), 69.
8. Ishida, M., Iwai, M., Yoshida, K., Kagotani, A., & Okabe, H. (2014). Subungual pigmented squamous cell carcinoma presenting as longitudinal melanonychia: a case report with review of the literature. *International journal of clinical and experimental pathology*, *7*(2), 844.