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Epidemiological and Histological Study of Malignant Cutaneous Tumors of the Face: Experience of the Plastic Surgery Department at CHU Med VI, Marrakech

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Abstract **Original Research Article**

Malignant tumors of the face mainly include carcinomas (basal cell and squamous cell) and, more rarely, melanomas. Through this study, we aim to define the epidemiological profile of patients with malignant cutaneous facial tumors, identify risk factors, and examine the histological characteristics and anatomo-clinical varieties of these tumors in our context. Our work is a 5-year retrospective study involving 223 cases of facial tumors managed at the Plastic Surgery Department of CHU Mohamed VI between January 2016 and December 2021, consisting of epidemiological, clinical, and histological analysis. Patient age ranged from 8 to 83 years, with an average age of 54, and a clear male predominance. Most patients were exposed to sunlight through their occupations, without significant protection. The most common precancerous lesions were actinic keratoses followed by xeroderma pigmentosum. All regions of the face were affected. Macroscopically, ulcerative-exophytic lesions were predominant (56%). Basal cell carcinoma was the most frequent histological type (47%), followed by squamous cell carcinoma (39%) and melanoma (3%). Malignant facial skin tumors are a common dermatological pathology in our setting. Diagnosis is primarily based on clinical examination and histopathology. Prevention relies on avoiding risk factors. Early diagnosis and proper excision are key to prognosis.

Keywords: Facial skin cancer, Basal cell carcinoma, Squamous cell carcinoma, Epidemiology, Risk factors.

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INTRODUCTION

The face is a unique anatomical area, highly exposed to carcinogenic factors such as ultraviolet (UV) radiation, making it particularly vulnerable to skin cancers.

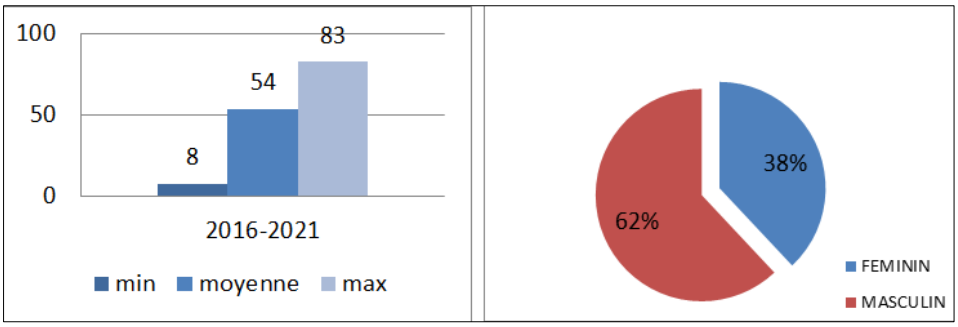
Facial tumors are mainly composed of carcinomas (basal cell and squamous cell) and, more rarely, melanomas.

MATERIALS AND METHODS

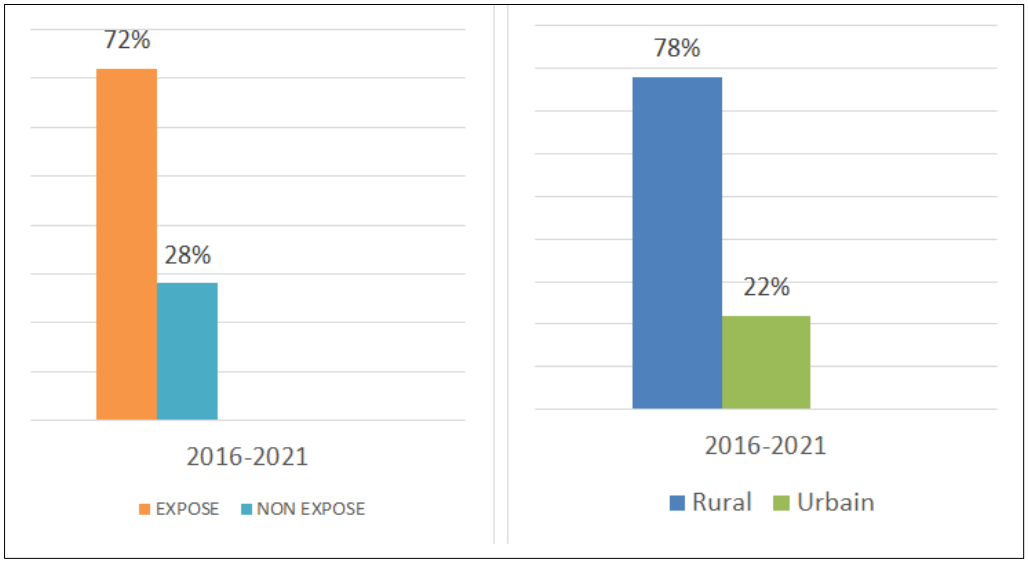
We conducted a retrospective study over 5 years, from January 2016 to December 2021, including all patients admitted for malignant facial tumors at the Plastic Surgery Department of CHU Med VI, Marrakech. A data collection form was used for each patient to gather and analyze epidemiological, clinical, histological, and radiological parameters. Scalp tumors were excluded.

RESULTS

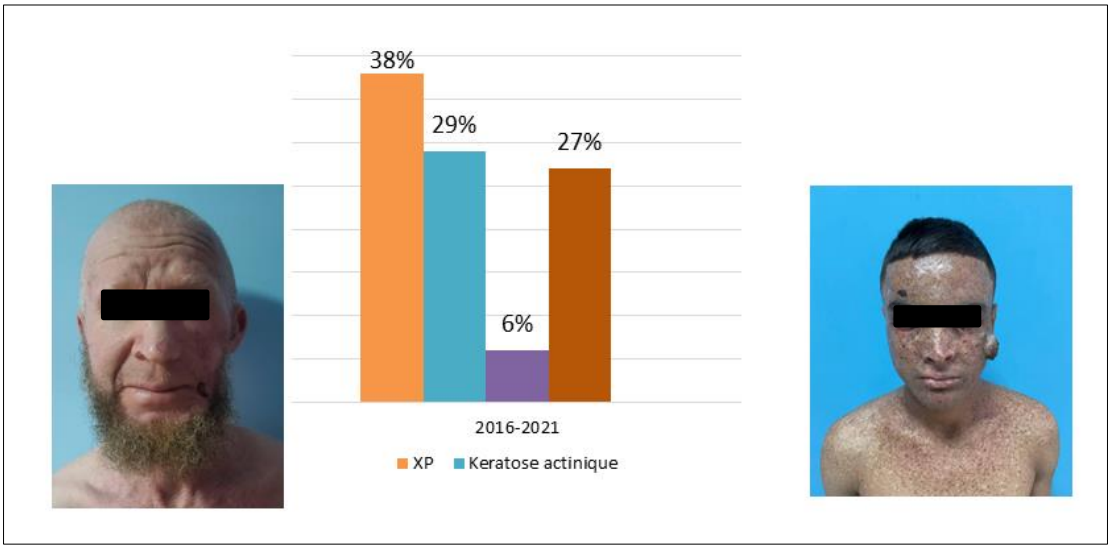
- ***Sex:*** There was a male predominance with 62% male and 38% female patients.
- ***Age:*** Average age was 54 years, ranging from 8 to 83 years.



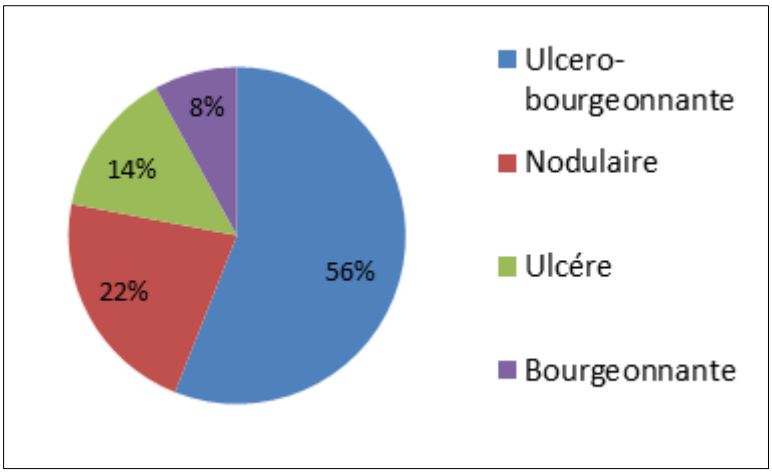
- ***Origin and Sun Exposure:*** The majority of patients (78%) were from rural areas, with sun exposure identified in 72% of cases, mostly work-related (farmers).



- ***Precancerous Lesions and Consultation Delay:*** Precancerous lesions were found in 63% of patients, mainly xeroderma pigmentosum and actinic keratosis. Consultation delay ranged from 2 months to 12 years, with an average of 24 months.



- ***Macroscopic Aspect:*** Lesions were predominantly ulcerative-exophytic (56%), nodular (22%), ulcerated (14%), and exophytic (8%).



- ***Tumor Location:*** All facial regions were affected, with a predominance in the upper third of the face. Tumor sizes ranged from 0.5 cm to 18 cm.

- ***Biopsy:***

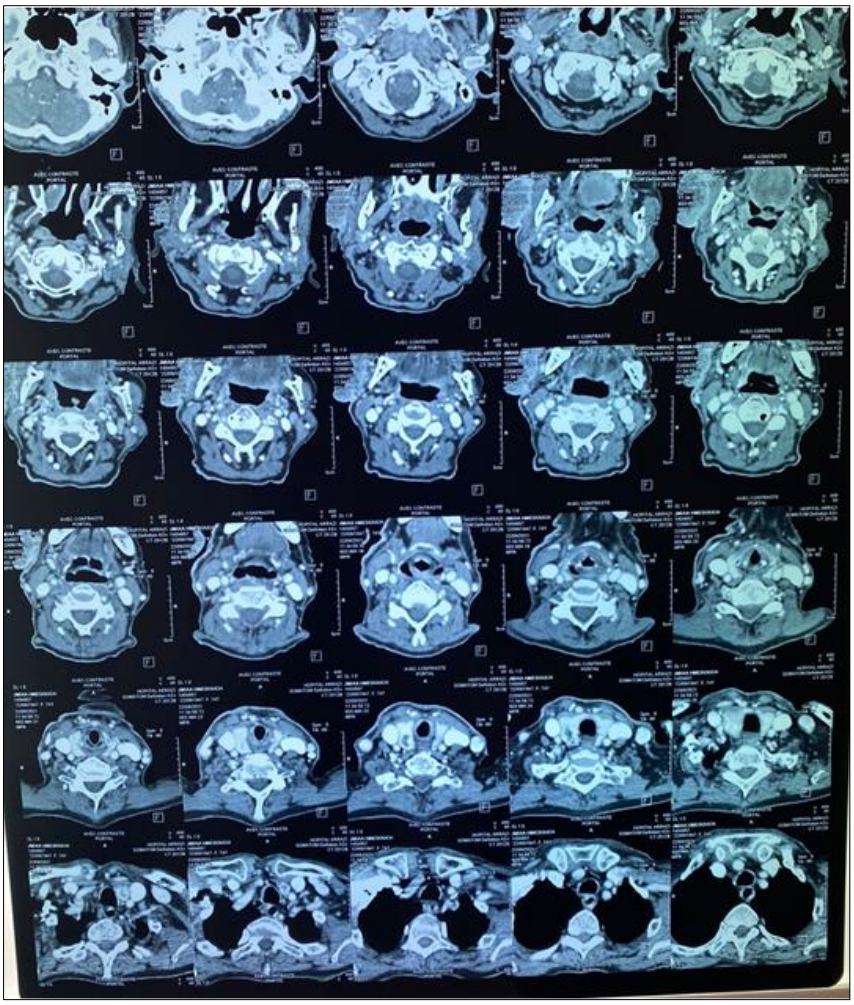
All patients underwent biopsy for diagnosis confirmation, revealing:

  - BCC: 47%
  - SCC: 39%
  - BCC + SCC: 11%
  - Melanoma: 3%.

- ***Staging Workup***

All patients underwent complete clinical examination, local extension assessment (CT or MRI), operability workup (biological and paraclinical tests), and distant metastasis assessment (for SCC and melanoma).

Metastases were present in 32% of patients at admission (64% lymph node, 29% pulmonary, 4% bone, 3% brain).



- ***Therapeutic Approach:***
  - > Tumor excision respecting safety margins, with or without lymph node dissection depending on histology.
  - > Immediate or delayed reconstruction based on case.
  - > Oncology follow-up for complementary treatment.

DISCUSSION

Cutaneous facial tumors represent a major public health issue, especially in areas with high sun exposure such as Morocco. This study highlights the typical epidemiological profile of at-risk patients: elderly individuals from rural areas, often working outdoors and with limited access to healthcare.

The predominance of BCC followed by SCC aligns with international literature. While BCC rarely metastasizes, it is locally aggressive and may cause extensive tissue loss if diagnosed late. SCC carries a significant risk of metastasis, especially in high-risk locations (ear, lip, periorbital region).

The average diagnostic delay of 24 months in our series underlines the need for early screening and greater awareness of precancerous lesions and warning signs among rural populations. Studies show that community screening programs can significantly reduce morbidity.

Surgical excision with clear margins remains the gold standard, with reconstruction as needed. Facial reconstruction requires close collaboration between plastic surgeons, dermatologists, and oncologists within a well-structured management protocol.

The rising number of cases over the years may be due not only to better diagnostic access but also to environmental and behavioral changes (climate, ozone, voluntary sun exposure).

CONCLUSION

Malignant facial skin tumors are a common dermatological condition in our region. The number of cases has been increasing over the years. Diagnosis is based on clinical examination and histopathology.

Imaging (CT or MRI) is used to assess local extension and distant metastasis, which guides management. Prevention remains the best strategy, including population education about precancerous lesions, sun protection, and early detection.

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