

# **RESEARCH ARTICLE**

#### THE SKIN TUMORS EVOLVED FROM THE FACE. EXPERIENCE OF THE PLASTIC SURGERY DEPARTMENT CHU MOHAMMED VI ABOUT 60 CASES.

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#### Abstract

..... The malignant skin tumors advanced of the face represent a serious pathology due to its location, its evolutionary potential and especially its vital prognosis. All these factors and others justify the collective care as early as possible while respecting the convenience of the patient. From a retrospective study spread over a period of 7 years and half, we analyzed the epidemiological and clinical characteristics, the delay of diagnosis, the type of therapy and the outcome of 60 patients in our structure. The age of our patients varies between 7 and 89 years with an average age of 63 years and a clear male predominance (sex ratio = 3). The rural origin accounted for 87% and the majority of professions exposed to the sun. The mid-facial region was the site of 60% of the tumors studied. Histological results showed basal cell carcinoma predominance of 55%, followed by squamous cell carcinoma 40% and melanoma 2%. Tumors were classified as T4 in 73% with a concentration lesions mid-lock face/mid-facial 60%. The tumor resection was the rule in all our patients while respecting a margin of safety adapted to the histological type and tumor size. These margins were complete in 48 patients, incomplete in 12 patients (Xp and Epidermodysplasia) whose goal of resection was initially palliative. Lymph node dissection was performed in 7 patients. Exenteration was performed in 10 patients. A parotidectomy was performed in 5 patients. The repair process was adapted to the seat and the extent of the defects. Reconstruction was deferred in 83% of cases and involved various ways of skin grafting to muscular cutaneous flaps. Adjuvant radiotherapy was indicated in 17 patients. These findings should lead us for more precaution and to rethink our carcinological and reconstructive approach. The deployment of simple means allows local monitoring and prioritizes other means according to needs. A preventive approach remains a pillar in the management of these "historical" tumors.

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### Introduction:-

The advanced malignant skin tumors of the face represent a serious nomological entity because of their localization, their evolutionary potential and above all the functional and vital prognosis that join advanced malignant tumors [1]. Their peculiarity sits at the level of the cephalic extremity which alone constitutes a surgical and reconstruction peculiarity, the difficulty of standardized the management whose definition remains problematic and nonconsensual, and of another Angle tertiary prevention the modalities and means of supervision which require a drastic effort both of the caregiver and the patient itself [1, 2]. All these factors and others justify the earliest possible collegial management while respecting the patient's suitability. The face is a special entity, due to its cephalic position, bounded up by the line of implantation of the hair, laterally by the pavilion of the ear and down by the hyoid bone. The face of a vital social and functional role. It is a region where aesthetic integrity is in itself a function. An extended lesion is a lesion that exceeds a functional unit or the functional capacity of the organ, one or more aesthetic units. The resection of these evolved tumors becomes complicated, causing transfixiantes-hard-torebuild substance losses (PDS), mobilizing local and remote means to cover the various plans. This coverage is often deferred for better cancer control [1, 2]. The most common histological type is basal carcinoma, followed by squamous carcinoma and finally melanoma [1]. The purpose of our work is to describe the epidemiological profile, the anatomical-clinical and histological aspects as well as the therapeutic means of reconstruction and local control of these tumors adapted to our context.

# **Patients and Methods:-**

We conducted a uni-centric retrospective study through the cases of advanced malignant skin tumors from the face of the plastic surgery department. We have studied all the files listed over a period of 7 years and 6 months from January 2008 to June 2015. The informed consent of each patient was obtained for the manufacture and exploitation in the anonymity of the medical file for scientific purposes.

The inclusion criteria were as follows:

- 1. The nature of the face tumor on the pre-biopsy: only melanomas and basal and squamous carcinomas were retained.
- 2. The evolved character of the tumor.

We have included 60 cases in our study. The collection of epidemiological, clinical, radiological and histological data, the diagnostic and therapeutic approach and the evolutionary mode of these patients. The data is collected and analyzed using Microsoft Office Excel software.

#### **Results:-**

#### The epidemiological profile:

Male predominance was found: 45 males and 15 women with sex ratio H/F = 3. Our patients were between 07 and 89 years of age with an average of 63 years. 87% of the patients were from the rural environment. In our series, we have objective risk factors:

- 1. The Phototype: Type III was the Phototype predominate 57% of cases, followed by Phototype IV in 35% of cases.
- 2. The solar exposure was found in all of our patients, but it was difficult to quantify, however, it is found significantly in 67% of our patients associated with an outdoor occupation.

precancerous states dominated by Geno dermatoses (8 cases of Xeroderma pigmentosum, 2 cases of epidermodysplasia Verruciformis and one case of albinism) as well as Actinic. 6 patients had a personal history of skin cancer. Smoking was noted in 19 patients, 13 were active tobacco smokers, 6 were passive and 43 non-smoking patients. Other associated tares were dominated by high blood pressure 14 cases and 9 cases of diabetes.

#### The Clinical profile:

The consultation period varied from 5 months to 16 years. We recruited 60 patients in this study, had presented 87 tumors distributed as follows: 47.78% had a single tumor, 6.1% two tumors, 3.5% 3 facial tumors, 4.7% had multiple tumors of the face. The lesions had interested almost all floors of the face at different proportions but predominated mainly at the Centro-facial level in 60% of cases . 70% of patients were consulted following signs of local infiltration: pain, bleeding and ulceration of tumor lesions. 17% as a result of locoregional infiltration: 9 cases in the blind stage and a case with facial paralysis. 6% or 4 patients had been consulted at the metastasis stage. The

tumor size was between 3 cm and 15 cm for basal carcinoma, and between 4 cm and 18 cm for squamous carcinoma. Clear tumors were more predominant 60% than pigmented tumors. The lesion was infected in 6 cases and bled to contact in 34 cases. 53 patients had pain in the palpation of the tumor. Clinical signs of parotid infiltration in a patient, six cases of associated scalp tumors, two cases of ectropion and 6 cases of ptôsis. Of the patients who had a palpebral tumor with an invasion of the orbit, we noted 4 cases of limitation of ocular movements, 7 cases of decreased visual acuity and one case of Exophthalmos. For the ENT examination of all patients, we noted 3 cases of unilateral deafness, 3 cases of nasogenien pathway, 2cas of nasal obstruction, one case of otorrhagia and one case of facial paralysis. 13 patients with squamous carcinoma had shown palpable cervical adenopathy. (table 1)

Table 1:-Clinica	l ganglionic im	pairment in	our patients.
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	Homolateral	Bilateral
CSC	9 cases (15%)	4 cases (6%)
CBC	2 cases (3%)	0 cases

#### The Paraclinical profile:

A systematic first biopsy revealed: 33.55% basal carcinoma (CBC), 24.40% squamous carcinoma (CSC), and 1.2% melanoma. Association (CSC + CBC) in 2.3%. The histological study confirmed the majority of 2 subtypes of CBC: Nodular and sclerosis infiltrators. Epidermoid carcinomas were all infiltrated and undifferentiated in 10 cases and moderately differentiated in 14 cases.

A facial tomography was requested in 41 patients: 13 patients had a bone extension, 10 cases of ganglionic damage and ten cases of intra-orbital extension. 11 cases of invasion of adjacent subcutaneous structures with the involvement of several facial units and associated bone lysis. Cranio-Facial MRI was made for one case and showed frontal metastases. CTAP TDM was performed in 15 patients, and other patients were not able to benefit (lack of means) other than hepatic ultrasound and thoracic radiology. A cervical ultrasound was made for all patients. At the end of the clinical and paraclinical balance, carcinomas were classified according to the TNM classification of the international Union Against cancer UICC. 73% of our patients were classified T4. 7% of our patients had metastases. The only case of melanoma was classified as stage IIB.

#### The Therapeutic profile:

Cancer-purpose surgical treatment was intended for 56 patients 93% and palliative for 4 patients 7%. The safety skin margins ranged from 10 to 30mm (10 mm for 52 cases; 15 mm for 01 cases; 20 mm for 07 cases; 30 mm for 01 cases). In depth had prevailed: the deep muscles in 37 cases is 61%, cartilage in 15 patients is 2 cases of ear-horn tumors and 13 cases of nasal tumors, periosteum for 5 frontal tumors or 8% of cases, maxillary sinuses for 7 cases of T Umeurs Centro-Facials and frontal sinuses for 2 cases of frontal tumors. Lymph node cleaning was done in 9 patients. We have used deliberants surgeries, presented in the table (table 2).

	CBC	CSC	
			Melanoma
Exenteration	6 cases	4 cases	_
Amputation of the Ear Pavilion	0 cases	2 cases	_
Superficial Parotidectomies	2 cases	3 cases	I

Table 2:-The organs carried over the tumor resection.

The resection was complete in 80% cases (48 tumors). The pathology results of the ganglionic clearing were all positive with only one case of capsular intrusion in a patient operated for this Centro-facial. Residual substance losses ranged from 4 cm to 20 cm (Figure 1) (Figure 2). Coverage was immediate in 10 cases 17% and was deferred after Anatomopathological study and histologic confirmation of the cancer character of the resection 83%. It was used in 45% for skin grafts (total skin) (Figure 1). The use of local or regional shreds was required in 33 cases 55% (table 3) (Figure 2) (Figure 3). A cartilaginous graft was used in 4 cases 7% for nasal repair (Figure 4). Dermal expansion was used for two cases of Xeroderma pigmentosum. (Figure 4).



Figure 1:-Total skin grafting after tumor resection of a basal carcinoma with auriculoctomie.



Figure 2:-The use of temporal muscle for the reconstruction of a PDS after tumor resection of a basal carcinoma with orbital exenteration.



Figure 3:-cartilaginous graft collected at costal level for the repair of a loss of post resection nasal substance from epidermoid carcinoma.



Figure 4:-Skin expansion by inflatable prosthesis used in a patient with Xeroderma Pigmentosum.

Additional support was introduced in 17 patients with adjuvant radiotherapy. The follow-up of the patients, based on the local and general and paraclinical Clinical examination in collaboration with the oncology department, it was done on a regular basis depending on the nature and stage of the tumor, and adapted to the means of reconstruction. We had a short-term death was linked to a Centro-facial CSC with bilateral intra-orbital extension and cerebral metastases. 12 patients were lost from the outset (table 3). In the long term, follow-up was only possible for 48 patients, with an average decline of 2.2 years, we found a recurrence rate in patients who had correctly followed the surgical and adjuvant treatment was 11.6% (7 cases) (Figure 5) (table 4).

The shreds		Number of cases
A:	Musarder	4 (7%)
Local shreds	Karapandzic	4 (7%)
	Heterolalia of Abbot	2 (3%)
	-Est Lander	
	Nasogenien	3 (5%)
B: Regional Shreds	Scalp	13 (22%)
	Frontal	6 (10 %)
	Delto-pectoral	1 (3%)

**Table 3:** The various shreds used as means of repair: A: The local shreds, B: Regional Shreds



Figure 5:-Tumor recurrence at the scalping flap in a patient who had basal carcinoma after 4 years.

Table 4:-A:Les complications related to surgery in our patients, B: complications related to recidivism

The complications		Number of cases
A:	The infection	15
Complications post chirurgical	Bleeding	5
	Lymphedema	1
	Ectropion	1
B: Complications related to local recidivism	Partial necrosis of the flap	3
	Bone necrosis	1
	Partial lysis of the skin graft	4

# **Discussion:-**

The advanced malignant skin tumors of the face represent a common pathology in the practice of plastic surgery. In our study, 60 cases of Advanced malignant skin tumors of the face were treated, which concerned only the patients who met the inclusion criteria, with an estimated incidence of 8 new cases per year. This incidence remains very high in our population as elsewhere [3]. Basal squamous were the most frequent 55% and then squamous 40% and

melanoma 2%. Advanced carcinomas are described as being the prerogative of the elderly, the average age of diagnosis in our series is 63 years. [4] It is higher in France (71 years) [5]. Regarding sex, we noted a clear male predominance 45 men and 15 women, with a sex ratio = to 3. This prevalence is less pronounced in the studies this can be explained by geographical origin (rural environment 87%), the nature of the profession and the use of the means of protection [5]. Phototype is a major risk factor in the appearance of a skin tumor especially phototypes I and II, but their distribution varies according to ethnicity [6.7]. Phototypes III and IV were predominant in our study with 85% of cases. Geno dermatoses and unstable scars constitute a tumor bed for skin carcinomas [8]. Actinic keratoses 12% and Bowen's disease are considered a precancerous state [9]. Our results are in the study of Dumas et al [7] for KA (13%), whereas for Kavoussi et al [10], keratoses actinic are by far the most frequent premalignant lesions estimated at 40.2%. In the study of L. Kani [11] The rate of Xeroderma Pigmentosum was 1.8%. The other risk factors that are considered exogenous, the solar exposure is frequently referred to in intermittent or chronic ways. This close relationship between the sun and skin carcinomas is illustrated by the fact that 80% of them sit at the level of the photo-exposed areas [8, 9]. The percentage of patients exposed to the sun is estimated to be 77% in our study. Flavia Regina Ferreira et al [6] reported that 70.1% of their patients were exposed during childhood to the sun or were exposed to adult work. Ahmad and Gupta [12] found a higher percentage of solar exposure at 89%. 95% of patients in Pinatell and Mojallal [13] were exposed to the sun. Another significant exogenous risk factor is the smoking that is implicated in the majority of human cancers including skin carcinomas (Naso-labial, mucous membranes) [14]. In our study smoking was found in 31% of our patients. This is consistent with data from a study conducted in 383 patients in Florida (26% of cases) [14]. In the study of Eskiizmir et al [15], the percentage of smoking was higher (50%). The long duration of evolution before the consultation reflects the evolved forms found in our series, the frequency of bone impairment, intra-orbital extension, and metaganglion and remote metastasis. The analysis of our results revealed that the consultation period is extended, averaging 31 months. This delay is explained by the tendency to trivialize these slowly evolving tumors, the low socio-intellectual level and the geographical origin. The destruction in the advanced forms of skin tumors of the face are sources of pain, bleeding, over infection, destruction of Anatomical organs and neighborhood structures. When the peri-nervous invasion occurs, it drags into tumors of the face a risk of symptomatic intracranial carcinomatous neuropathy, most often observed on the trigeminal nerve (V) and the facial nerve (VII) [16]. In our study 70% of patients were consulted following signs of local infiltration and 17% following infiltration locoregional (9 cases of blindness and one case with facial paralysis), while 6% or 4 patients consulted at the stage of metastasis. In this type of lesions, when the patient presents himself, functional amputation is most often already acquired for peri-artificialist lesions and the elements that are often ahead are, or a particular psychological situation, which expresses Often the denial of the disease, the social consequences of disfiguration [1]. The topographic distribution of lesions is majority in areas exposed to light: 85% of cases. Some forms can be very mutilating even more so at the face level, the thickness of the soft parts covering the skeleton is low and the danger of extension in the zones of fusion of the embryonic buds is important [17]. In our work, 60% of the lesions are located at the mid-facial level, which corresponds well to the results of E. Rio [5] 59% location of face lesions at nose level. At the clinical level, carcinomas evolve in several forms. The ulcerobourgeonnant aspect was the most common in our series: 72%. Tumors 2 cm in diameter and above are twice as likely to re-offend locally and three times more likely to metastasize at a distance of 5 years than tumors with diameters less than 2 cm. The rates of recidivism and metastasis at 5 years of age are, however, 7.4 and 9.1% respectively, which is not negligible. Several retrospective studies and a more recent prospective study are in the same direction [16, 18]. The dimensions are measured on the large axis between 3 cm and 15 cm for basal carcinoma, between 4 cm and 18 cm for squamous carcinoma and 6 cm for the sole case of melanoma. Ganglionic disease is a critical element in the diagnosis, in the therapeutic attitude and in the prognosis. In our series, 29% of patients with squamous carcinomas were at the outset metastatic (7 cases of 24 cases of this). For the CBC, 3.3% of patients had ganglion metastases. The positive diagnosis of cutaneous carcinomas is based on clinical examination and is confirmed by the anatomopathological examination. The anatomopathological examination allows an accurate diagnosis, the control of the quality of the resection and a suitable management. In our series, the diagnostic biopsy showed the prevalence of basal carcinoma in 33 patients (or 55% of cases) (46% of these CBC are infiltrating, 30% are sclerosis and finally 24% are nodular), followed by carcinoma squamous In 24 cases (i.e. 40% of cases), two cases of combination of basal and squamous carcinomas and only one case of melanoma. The same report was reported by several studies [3, 4, 17]. In front of local flooding and regional loco A radiological assessment was carried out according to clinical signs the histological type and the means of each patient. 73% of carcinomas were T4, 25% had node damage and 7% had metastases. The melanoma case in our series was classified as stage IIB. These results could be explained by:

1. Long period of consultation in our series (31 months)

- 2. The removal of our patients from health facilities and their neglect (87% of our patients were from the rural environment).
- 3. The lack of awareness of these patients.
- 4. The use of traditional therapies.

The surgery is unanimously recognized as the treatment of choice of these tumors. It aims to ensure a cancer resection of quality to avoid recurrences as well as an adequate reconstruction while preserving the aesthetic function of the face. In our series The majority of our patients were elderly multinuts (diabetic, cardiac, nephropathy or other) [1, 9]. After the patient's agreement, the care must be the subject of multidisciplinary consultation in order to choose the best strategy whose objective can be simply palliative. The resection must be cancer, that is, complete from the outset, to limit the risk of locoregional and distance recurrence. The ideal margin is a compromise between too wide a margin, responsible for unnecessary tissue loss and insufficient, exposing a risk of recurrence. To achieve a curative objective, it will have to be all the broader as the patient presents risk factors for recidivism [7, 8, 11]. We are interested only in carcinomas with the criteria of a high-risk group, where the advanced malignant skin tumors of the face can be integrated. Resection was histologically incomplete in 11% of the cases according to the study of G. Staub et al [3] and 13% in the study of Ganeval-Stoll et al [19]. In our series The resection was incomplete in 13% of patients plus the 7% of patients whose purpose of resection was initially palliative, consistent with the results of G. Staub et al [3]. Ganglionic clearing was performed in 9 patients (15%), whereas a. Ganeval-Stoll et al [19] reported a lower rate of 6.6%, they also reported a parotidectomy rate of 3.3%, whereas in our study, a superficial parotidectomy Conservative facial nerve was performed for 5 patients or 8%. We used the orbital exenteration 10 times or 16%. Bone resection of the cranial vault in 3% of the cases. The auriculectomy was made in 3%, whereas a. Ganeval-Stoll et al [19] reported a higher rate of 13%. The coverage of the loss of substance generated by resection uses the various means offered by reconstructive plastic surgery ranging from skin grafting to complex techniques. This coverage is often done, deferred after confirmation of the cancer character of the resection by the Anatomo – pathological study of the operative part. In our series, cutaneous grafts were used in 27 cases (45%). We used skin flaps for the repair of post resection substance losses Tumor in 33 patients. The median frontal flap was used for nasal reconstruction in 6 patients (10%). With respect to labial PDS the KARAPANDZIC flap was used in 4 (7%) patients. 3 patients (5%) benefited from a naso-Genien flap cover, which is consistent with the results of S. Ayachi [20]. The hetero labial flap of Abbot-Estlander was used in two patients (3%). The palpebral reconstruction mainly appealed to the flap of rotation of "mustard" (7%). The exentération cavity was covered by compound means epithelialization directed the flap of fascia superficialis temporalis (a single case) or flap of the temporal muscle (16.6%), and then a thin skin graft. The Dedhiya-pectoral muscle flap was used for a single patient in our series for the repair of a jugal PDS, and only one case of use of skin expansion. Recurrence of basal carcinomas was observed in 13.4% of patients (Geno dermatoses). The recurrence of Epidermises carcinomas was 11.6% Ganeval-Stoll and G. Staub et al reported a lower rate [18].

# **Conclusion:-**

The advanced tumors of the face belong to a very special nosologically framework. Each case must be examined in a comprehensive manner without bias. In Marrakech and in our African context in general, epidemiologically and clinically these tumors remain frequent. The prognosis is related to the quality of the first resection which remains the cornerstone in terms of treatment. Conventional reconstruction processes are not always applicable to these patients. It is a question of providing a safe and fast repair. In this context, we propose every time, as we can, the redeployment of locoregional structures, instead of very consuming microsurgical repairs. The psychological care of the patient being operated is an important part of the treatment, it helps the patient to bear the experience of the disfigurement. Regular post-therapeutic monitoring is essential in order to detect and treat any complication or recurrence of tumors in time. Advanced tumors need to grow experts, especially those in the most affected countries, to come together to establish protocols that are appropriate for this type of patient. Only screening, early diagnosis and access to care will eradicate these historical tumors.

#### **Conflicts of Interest**

The authors do not declare any conflict of interest.

#### **Authors ' Contributions**

All the authors have contributed to the conduct of this work. All authors also report having read and approved the final version of the manuscript.

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