

# Malignant Cancers of the Eyelid: Experience of the Plastic Surgery Department of Fes /Meknes/Morocco

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**Abstract:** *Eyelid cancers present 5% à 10% of all skin cancers [1, 3] and is considered to be dangerous due to its proximity to vital structures such as orbits, sinuses, and the brain [4]. Early diagnosis and a complete cancer excision of the primary lesion are important to reduce the morbidity and mortality, especially to improve the cure rate . Our study concerned 41 cases of eyelid cancers collected at the Plastic Surgery department of the hospital ALghassani in Fes city and the center of burns and plastic surgery of hospital Mohammed V in Meknes\_Morocco , from February 2021 to octobre 2022. We expose our surgical techniques with literature review. The arm of the treatment is surgical excision of the lesion with safety margins adapted to the anatomopathologic variety. The repair procedure must respect the anatomical layers of the eyelids to achieve a correct functional result.*

## **Introduction:**

Eyelid skin cancers have low mortality but significant morbidity [3,4]. The eyelids play an essential functional and aesthetic role. Schematically, the upper eyelid protect the eyeball and the lower eyelid the lacrimal ducts. The eyelid repair problems will therefore be different depending on the affected eyelid. Recurrent, multi-operated forms and advanced forms are frequent in our context.

## **Methods:**

The study concerned 41 cases of eyelid cancers collected at the Plastic Surgery department of the hospital ALghassani in Fes city and the center of burns and plastic surgery of hospital Mohammed V in Meknes , from June 2021 to April 2022. Here we expose our contribution to the management of transfixing defects of the upper and lower eyelids. Clinical cases are reported, with literature review, to discuss the indications for the different surgical techniques.

## **Results:**

The average age of the patients was 62 years, with an M/F sex ratio of 1.1/1. The duration of evolution was greater than 2 years in 19 cases (46.4%), with an average of 32 months. The notion of local tumor recurrence was found in 15 patients (40%).

Four patients have Xeroderma pigmentosum. The lower eyelid and the inner canthal region were affected, respectively, in 47% and 37% of cases. The size was greater than 2 cm or poorly circumscribed in 18 cases (44%) . Orbital invasion was observed in 6 cases (14.6%). Biopsy (4 cases) or better, excisional biopsy (37 cases) found the positive diagnosis of cancer, with a rate of basal cell carcinoma of 85%. Oncological treatment involved surgical excision, with histological control of the margins in 35 cases (90%), and exenteration in 4 cases (10%). Surgical treatment was refused in two cases. Lymph node dissection was performed in two cases. Lymph node dissection was done in two cases. No other complementary treatment was considered. The reconstruction used a variety of techniques, from the easier directed healing(fig 1) to more elaborate :grafting (fig 2)and flap (fig 3, Fig 4)procedures. It was immediate in 25 cases (71%). surrounding skin flaps were the most used (47%). Total reconstruction of the lower eyelid was performed in 4 cases (11%).



Fig 1 excision followed by directed healing for a basal cell carcinoma of the canthus



Fig 2:excision of BCC locally advanced to underlid covered by a total skin graft.

Results after 1 month



Fig 3 :excision of underlid BCC and repair the loss of substance ad integrum :chondromuquosis flap for posterior lamella and mustardé flap for the anterior one



\*



Fig4: repair underlid area after excision of Squamous carcinoma with mustadé flap.

the result after six months

### **Discussion:**

5 to 10% of skin cancers occur in the periorbital region. Eyelid cancers constitute more than 90% of all ophthalmic tumors [1] and, basal cell carcinomas (BCCs) are clearly in the majority, representing 80 to 90% of eyelid cancers[10,11]. Other histologies are observed more rarely: squamous cell carcinoma (SCC), malignant melanoma (MM), Merkel tumors, sebaceous carcinoma [12]. It is difficult to obtain precise figures because the various epidemiological studies relate to heterogeneous populations (number of patients, race, genetic capital, sun exposure.) [10, 13, 14,15].

The main treatment for skin cancers currently remains surgical excision of the lesion with safety margins adapted to the anatomopathologic variety or, for certain tumours, with the Mohs microsurgical technique. Safety margins recognized as necessary are 3 to 5 mm for BCC, 8 to 10 mm for SCC, up to 2 cm for MM and 3 cm for Merkel tumor. The problem of eyelid lesions is the proximity of the eyeball which makes radical excision sometimes difficult or even impossible. Nevertheless, in the literature incomplete or insufficient primary resection is the main risk factor for tumor recurrence [1,4]. . Indeed, recurrent basal carcinomas have a more

aggressive biological behavior along with poorer prognosis than primary cancers [31, 32]. 84% periocular BCCs that invade the orbit are recurrences [30] and a recurrent BCC has up to 50% chance of new recurrence. Only Mohs micrographic surgery and FSC excision (frozen section control) are associated with the lowest frequency of recurrence. Cook and associates showed that only these 2 techniques have “an evidence rating of 1 (strong supporting evidence) in the treatment of periocular BCC (10). Repair procedure after anatomopathological analysis of the tumor is immediate (extemporaneous) or deferred. The reconstruction after a full-thickness loss of substance of the eyelid must be done ad integrum plan by plan; posterior and anterior lamella reconstruction.

➤ Rehabilitation of the tarsoconjunctival plane:

Different autologous grafts can be used. Ideally, the graft should be easy to harvest, bringing mucosal tissue, should be stiff enough to arm the eyelid, and donor site morbidity should be acceptable. The various grafts proposed in the literature are either identical (grafts and tarso-conjunctival flaps), or analogous (cartilaginous, chondromucous or fibromucous grafts)[19]. In our experience, the palatal fibromucosa is an indication of the posterior lamella of the lower eyelid. It is indicated as a second intention for the upper eyelid because the complication rate seems to be higher there [31]. We use conchal cartilage to rehabilitate the upper eyelid.

➤ Rehabilitation of lower eyelid:

Several skin coverage options are possible on a suitably repaired posterior lamella. Schematically, it is possible to perform a graft on a flap, a flap on a graft, a flap on a flap but never a graft on a graft [9]. The flaps can be harvested from the upper eyelid, temporal area (mustardé flap, Macgregor flap), cheek or frontal region. We gladly use the forehead flap in total inferior blepharoplasty. Its major drawback is its thickness which sometimes requires secondary degreasing. Some authors have thus proposed using only the frontal muscle and the fascia in the form of fasciomuscular flaps [9] to avoid the excessive thickness of the frontal flap.

➤ Rehabilitation of upper eyelid:

The reconstruction is much more delicate. The surgeon is confronted with two imperatives: good coverage of the eyeball by a perfect lid occlusion and on to ensure good palpebral mobility with thin and toned eyelid. Two large groups of techniques can be used: the use of the lower eyelid (two-step procedures) and the use of cutaneous or musculocutaneous flaps covering a mucosal, or chondromucous graft. It is generally accepted that the best material to rehabilitate the upper eyelid is the lower eyelid, it is still necessary that this one is intact and that the patient accepts the a procedure in two steps.[16]

➤ The canthus:

The lacrimal ducts can be affected during the resection of a tumor lesion. The problem of deep canthal mutilations is that of restoring the internal and external palpebral ligaments. Les reconstructions des voies lacrymales sont rarement indiquées. Etant donnée la moyenne d'âge relativement élevée des patients, la résection des voies lacrymales est bien supportée du fait de la raréfaction des sécrétions lacrymales avec l'âge.

Radiation therapy is used in combination with surgery as an adjuvant treatment, or alone as a palliative treatment

**conclusion :**

The management of eyelid tumors must follow the requirements. It is necessary to have in priority a carcinological attitude to protect the patient from a recurrence. It is then necessary to ensure the most functional and aesthetic reconstruction possible. At the palpebral zone, this involves rehabilitation of all the palpebral planes.

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