

Case Report

Face Basosquamous Carcinoma, a Case ReportR. MERCUȚ¹, CLAUDIA GEORGESCU², SANDA MIHAELA POPESCU³,
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ABSTRACT: Face basosquamous or metatypical carcinoma is a rare and controversial form of skin cancer. It is characterized by increased incidence of recurrence and distant metastases. We present the case of a patient of 71 years with an ulcerative lesion of 3/4 cm in the nasal pyramid. The injury occurred due to trauma to the nasal pyramid, produced 13 years ago. After investigation, which included ORL examination, imaging and oncology exam, surgery was decided to completely ablate tumor formation. The resulted defect of 4/5 cm was covered by mobilizing a forehead flap based on right supratrochleare artery pedicle. Histopathological examination revealed the diagnosis of basosquamous or metatypical carcinoma. The patient was referred to the oncology service for treatment.

KEYWORDS: basosquamous carcinoma, frontal flap, immunohistochemistry

Introduction

Basal cell carcinoma (BCC), first time described by Krompecher in 1903, represents the most common form of skin cancer in Europe, Australia and USA [1]. According to a Canadian study [2], cited by Smith and Walton in 2011, this type of cancer has an incidence in Caucasian population of 15-28% in women and 17-39% in men. BCC aetiology includes factors like sun exposure, genetic modifications, skin colour, precancerous lesions [3, 4]. Other risk factors are chemical aetiology of cancers (arsenic, hydrocarbons, gudrons), oncogenic viruses [5]. Histopathologically there are a lot of forms of CBC, CBC solid being the most frequent. CBC could coexist with squamous cell carcinoma, in metatypical form of basal cell cancer (basal squamous cancer). Among CBC, this has an incidence of 3%, 8% or 12% and a greater metastatic evolutive trend then CBC [1]. The treatment of choice for these carcinomas is surgical.

Case Report

We present the case of a patient, female, aged 71 years, with an ulcerated nasal tumor whose basosquamous malignant nature was documented by histopathological exam, from surgical excision sample. On admission in the Clinic of Plastic Surgery of the Emergency County Hospital of Craiova (September 2012), the patient had in the nasal pyramid region a 3/4 cm ulceration covered in crusts (Fig. 1,2).



Fig.1.Patient's aspect to admission



Fig.2.Forehead flap design in clinic

From disease history, the lesion appeared on the nasal pyramid after a traumatic injury 13 years ago. The patient did not followed any treatment for this lesion and, because of the sun exposure, the lesion had a slowly, malignant and extensive evolution. The patient, with normal weight and blood pressure, was otherwise in good health with normal lab tests. Initially patient ORL examination and imagistic exam confirmed that the tumor was not infiltrated into the nasal cavity and did not have metastases. After investigations, surgery was decided to completely ablate tumor formation. In first phase surgery, the tumor was resected en bloc with an oncological surface safety margin of at least 1 cm, resulting defect of 4/5 cm (Fig.3). To cover this defect a forehead flap focused on the right supratrochlear artery pedicle was designed (Fig.4). The forehead flap was lifted and turned over the defect in the nasal pyramid (Fig. 4). Donor area was closed by suture, and the flap was sutured to the defect. The second phase of the intervention was after 21 days (Fig. 5.a). The pedicle was cut and the flap edges were molded (Fig. 5.b).

The patient was referred to Oncology Clinic for treatment. Surgical sample was submitted to Histopathology department and the result documented a basosquamous carcinoma (Fig.6). Surgical sample margins did not present malignant cells.



Fig.3. Tumor resection



Fig.4. Forehead flap rotation and position on tumour site



Fig. 5 a and b. Nose reconstruction

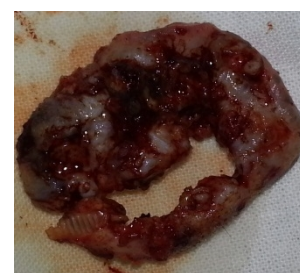


Fig.6. Surgical sample specimen

Histopathology

The histopathological diagnosis was metatypical carcinoma, the mixed type which has aggressive-growth infiltrative pattern (Fig 7 a and b). Microscopically were observed typical basal cells which coexist with squamous cells with eosinophilic cytoplasm and focal

keratinization consisting in pearls with parakeratotic or colloidal centre (Fig 8 a and b). At the sections immunostained with BerEP4 antibody we observed a strong membranary signal in areas of typical basal cells, and absence of BerEP4 immunostaining in areas with squamous cells differentiation (Fig.9 a and b).

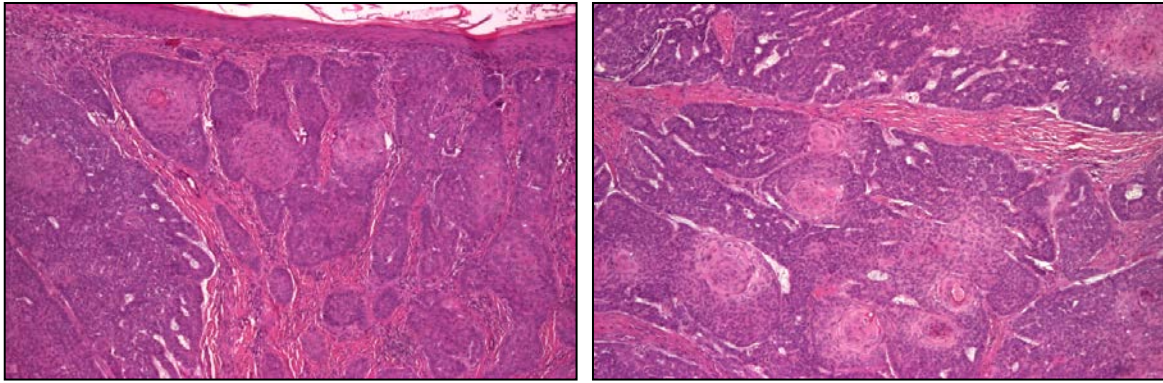


Fig. 7. a and b Mixed type of metatypical carcinoma: areas of BCC associated with areas of squamous cell carcinoma, Hematoxylin-Eosin stain; original magnification: x40

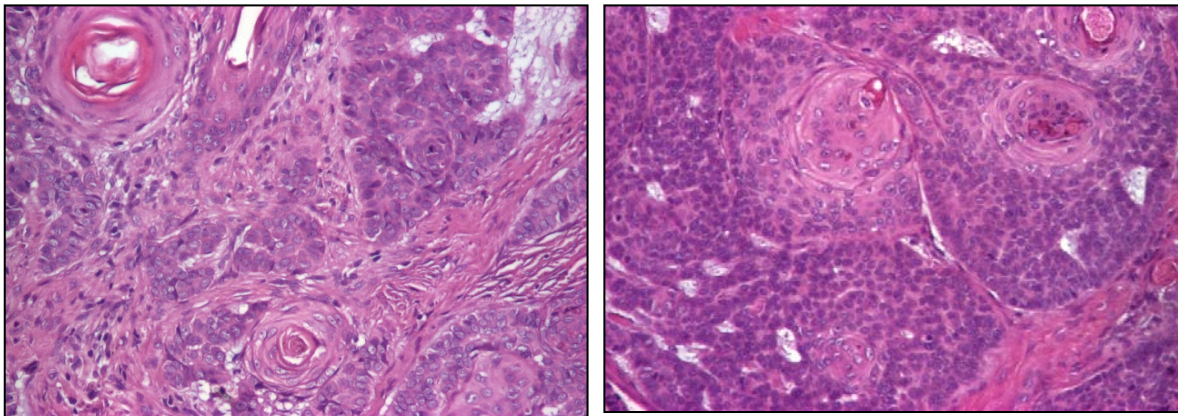


Fig. 8 a and b. Mixed type of metatypical carcinoma composed of typical basal cells and squamous cells with eosinophilic cytoplasm forming pearls with parakeratotic and colloidal centre, Hematoxylin-Eosin stain; original magnification: x100

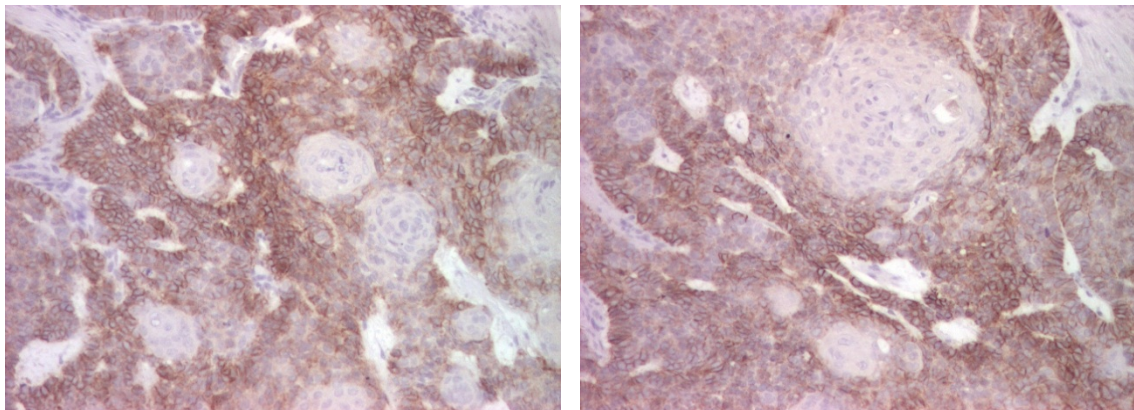


Fig. 9. a and b. BerEP4 immunostaining in mixed type of metatypical carcinoma was positive only in areas of basal cells differentiation; original magnification: x100

Discussion

An important aspect of this case is surgical reconstruction of nasal pyramide. Numerous surgical techniques are available for nasal reconstruction, but the forehead flap remains the criterion standard technique for large cutaneous defects. It has multiple advantages: it provide

the optimal colour and texture match to the native nasal skin and carries its own vascular supply, nourishing underlying grafts and tenuous flaps. A single forehead flap can be used for resurfacing the entire nose, from ala to ala [6] For this case it was obtained a satisfactory aesthetic result with the forehead flap based on right supratrochlear artery pedicle.

Another important aspect of the case is its histopathological type, basosquamous carcinoma, rare and predisposed to relapses. In 1910 was first reported by MacCormac a distinct type of skin carcinoma in which coexist basal cell carcinoma and squamous cell carcinoma without any transition zone between them [7,8] and in 1922 was first postulated a new type of basal cell carcinoma with features of squamous cell carcinoma [9]. There were recognised two types of basal squamous cell carcinomas or metatypical carcinomas: mixed type and intermediary type. Macroscopically the metatypical carcinomas are very similar to basal cell carcinomas and they are easily misleads [10,11]. The existence of metatypical carcinoma of the skin was questioned by many [12, 13] but is now accepted that this carcinomas had an aggressive behaviour [14] and a worse prognosis [15]. Karahan showed in 2006 that immunohistochemical staining for Ber-EP4 helps to distinguish basosquamous cell carcinoma from basal cell and squamous cell carcinoma. Each basal cell carcinomas were strong positive for Ber-EP4. In contrast, none of the squamous cell carcinomas were stained, and basosquamous cell carcinomas have areas staining like those of basal and squamous cell carcinoma [16]. BerEP4 is the most useful antibody for separating metatypical basal cells carcinoma from basaloid squamous cells carcinoma, which is BerEP4 negative [17].

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