

Squamous Cell Carcinoma of the Scalp: A Case Report

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Abstract

Case Report

Squamous cell carcinoma of the scalp is an uncommon localized entity. It is characterized histologically by invasion of the basement membrane. Imaging is recommended preoperatively to determine the local and distant extension of the cutaneous tumor, and is essential whenever perfect mobility is not preserved between the scalp and the deep bony plane. We report the case of squamous cell carcinoma of the scalp in a 64-year-old man, incriminated by extensive sun exposure.

Keywords: Carcinoma; scalp, scalp, solar.

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INTRODUCTION

The scalp is a unique anatomical zone. It consists of 5 layers: the skin, the subcutaneous cellular tissue, the galea, Merkel's detachable space and the cranial periosteum [12, 15]. Scalp carcinomas are an uncommonly localized entity. They are essentially dominated by basal cell and squamous cell carcinomas [1, 10]. Cutaneous squamous cell carcinoma (CSC), formerly known as squamous cell carcinoma, belongs to the family of primary cutaneous malignant epithelial tumors. This family is characterized by a malignant proliferation of keratinizing cells - expressing a squamous differentiation of the epidermis and/or its appendages. Few studies are available on squamous cell carcinoma of the scalp.

CASE REPORT

We report the case of a 64-year-old patient from Asni, residing in Marrakech, a day laborer by profession with a history of significant sun exposure, who was referred to our Radiology Department for a symptomatology that dated back 1? Years with the appearance of a nodular lesion repeatedly traumatized by scratching. The evolution of this lesion was marked by an increase in size. All this in a context of apyrexia and

preservation of general condition. Physical examination: Locally, an ulcerating-bourgeoning lesion of the scalp was noted. Scattered hyperpigmented lesions on the face. The lymph nodes were free. Biological tests were normal.

A cerebral CT scan showed: A voluminous, irregularly contoured, spontaneously isodense, heterogeneously enhancing, ulcerative-burgundy soft-tissue lesion process at the apex of the left fronto-parietal scalp, measuring approximately 9.1x2.6 cm, infiltrating the outer table, diploid space and eroding the inner table without intracranial extension at this level (Figure 1).

Histological examination of the excisional specimen described: infiltrative carcinomatous proliferation. Points of union are visible at high magnification. They are polygonal, medium to large in size, with an anisokaryotic, hyperchromatic nucleus. Most often nucleoli. Cytoplasm is abundantly eosinophilic. Horny globules are also present. The reaction stroma is fibro-inflammatory, with peri-nervous sheathing, leading to the conclusion of a moderately differentiated infiltrating and keratinizing squamous cell carcinoma.

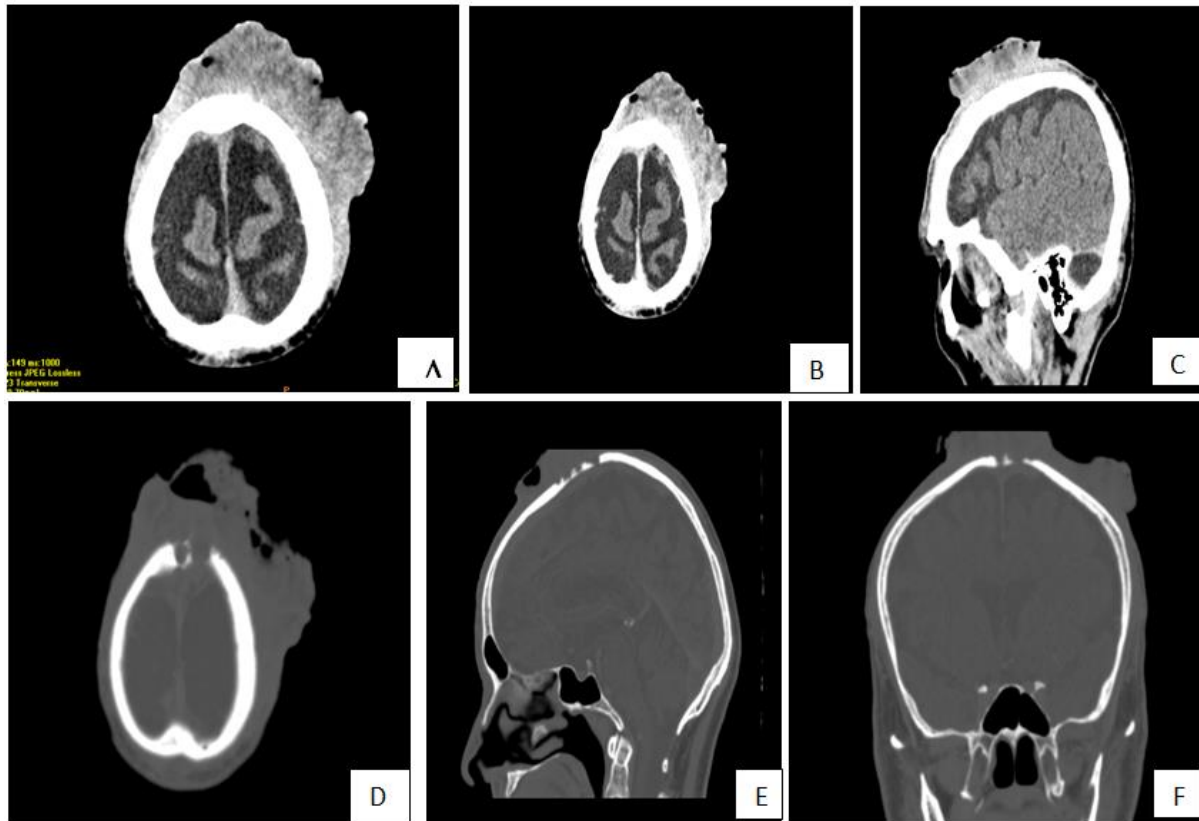


Figure1: Cerebral CT in parenchymal window (A, B, C). Without contrast medium injection (A); with contrast medium injection (B, C). bone window (D, E, F).

DISCUSSION

Squamous cell carcinoma is the most common histological variety of skin tumour after basal cell carcinoma. Scalp localization remains uncommon compared with other skin tumor localizations [2, 9]. In the literature, a predominance of males has been observed, which may be attributed to greater occupational sun exposure in men [1, 7, 9]. Positive diagnosis is based on clinical examination and confirmed by pathological examination. Anatomopathological examination enables accurate diagnosis, quality control of excision and appropriate management.

There are many incriminating risk factors. These include ultraviolet irradiation, especially in light phototypes, ionizing radiation, chemical carcinogens (arsenic, tar), old burn scars, xeroderma pigmentosum disease, pre-cancerous conditions (actinic keratosis and Bowen's disease) and a history of skin cancer [6, 10, 14]. In our case, the risk factor identified was high sun exposure.

The most frequent location of the tumour is in the parietal and temporal region (photoexposed areas) [1, 7], in our case fronto-parietal.

These carcinomas evolve in several forms, the most common of which is ulcerative-borgeonal. This form is characterized by a protruding, budding tumor,

sometimes ulcerated with crusts or clusters of cornea. The edges are hard and thick, and the base is infiltrated. The lesion may bleed at the slightest trauma.

Mobilization of the cranial tumor provides information on the deep extension of the lesion. The fact that the scalp remains normally mobile and can slide over the bone plane helps to rule out bone invasion. The lesion may, however, come into close contact with the periosteum [3], in which case there is a risk of insufficient deep excision (less than 2 to 3 mm, or up to lesion level) and a high risk of recurrence. When it is not possible to mobilize the tumoral region in relation to the bone plane, extension to the periosteum and external table is extremely likely.

The main histological feature is invasion of the basement membrane. [8] It has a real potential for infiltration and distant metastasis, as well as rapid growth. Lymph node metastases, either immediately or secondarily, were observed in a retrospective series by BESSEDE *et al.* 13 out of 243 patients with squamous cell carcinomas of the face and neck [4]. No metastases were observed in our patient.

Imaging is recommended preoperatively to determine the extent of the cutaneous tumour, both locally and at a distance (lymph node and visceral). As far as the scalp is concerned, imaging is essential as soon as perfect mobility is not preserved between the scalp

and the deep bone plane. CT is the best examination for detecting bony extension, with a clear understanding of tumour volume and lymph node involvement, while MRI is more effective for detecting tumour neurotropism and distinguishing affected soft tissues and tissue planes [5]. In our case, bony lysis of the arch was observed without invasion of the brain parenchyma.

Surgical treatment has three major aims: Curative, functional and aesthetic.

Curative: Ensure good-quality carcinological excision to avoid recurrence.

Functional: To ensure good reconstruction of resected tissues (Scalp, dura mater, calvarium) to protect the intracranial contents.

Aesthetic: Restore the convexity of the skull.

Generally speaking, cutaneous squamous cell carcinoma is a pathology with a good prognosis, notably due to the accessibility of the skin to screening by simple clinical means. This facilitates early diagnosis, and removal of the tumour before it has begun to metastasize. Despite this, the prognosis for patients with metastatic disease remains poor [8, 13].

CONCLUSION

Squamous cell carcinoma of the scalp, an uncommon localization, is the most common histological variety of skin tumour. Diagnosis is based primarily on clinical and histological findings, with skull imaging used to detect underlying extension to the external cortex, diploea, meninges and cerebral venous sinuses. Surgery remains the cornerstone of treatment for advanced scalp carcinomas. Surgical treatment has three major aims: curative, functional and aesthetic.

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