



CASE REPORT

Basosequamous Carcinoma, and its Epidemiology, Histopathologic Features, Treatment Methods: A Case Report

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Abstract

The aim of publishing this case is to highlighting on malignant skin tumor basosequamous carcinoma BSC and try to diagnose this disease early. Because it has highly recurrence rate and it may sometimes cause metastases. But fortunately, it is rare.

It is important to diagnose the disease early with the aim of reduce the morbidity rate associated with recurrence and the mortality rate associated with metastases from. Biopsy is the gold standard for diagnosing. Therefore, it is recommended if the skin lesions are not clinically diagnosed, to perform a biopsy before excision, or in cases of recurrent after the first excision. In my case, the patient presented with history of excision a skin lesion on the occipital of the scalp with multi recurrence. And when I performed a biopsy, and the result was basosquamous carcinoma, skin cancer.

Basosquamous carcinoma is an uncommon, aggressive malignancy for which current literature has little consensus and is seen by some as a distinct pathology to both BCC and SCC. However, there is long-standing discord over where BSC falls in the non-melanoma skin cancer spectrum, and current consensus leans towards BSC representing a subtype of BCC. Early diagnosis and identification are key to optimal clinical outcome, given the reported aggressive nature of the disease and high risk of recurrence and metastasis.

1. Introduction

World Health Organization (WHO) in the textbook “WHO classification of skin tumors” stated that: “Basosquamous carcinoma is a term used to describe basal cell carcinomas that are associated with squamous differentiation. At the same time, the National Comprehensive Cancer Network (NCCN) states that basosquamous carcinomas have a metastatic capacity that is more similar to that of SCC than BCC 2.1% of all non-melanoma skin cancers (NMSCs).

2. Epidemiology

Clinical and Demographic Characteristics

The most common clinical scenario in BSC is a long-standing nodule that gradually becomes ulcerated. A similar clinical course was also described for metastatic BCCs.

Diagnosis of Basosquamous Carcinoma

Dermatoscopy the commonest dermoscopic criteria for BSCs were unfocused arborizing vessels, keratin masses, white structure less areas, scale, ulceration or blood crusts, white structures, blue-grey blotches and blood spots in keratin masses.

Histopathologic Features of BSC

Presence of both BCC and SCC histologic characteristics with a transition zone between them. However, there is a certain controversy regarding how these features are arranged within the lesions. The transition zone is considered, by most authors, as a tissue which depicts a transitional stage of differentiation between BCC and SCC cells and not simply an area with atypical BCC cells. The BCC component of a BSC usually contains basaloid cells with a small cytoplasm and large, uniform, pale, nuclei, whilst the SCC element consists of accumulations of polygonal squamous cells

containing voluminous eosinophilic cytoplasm, larger open nuclei with prominent nucleoli and frequent mitosis. These aggregates of squamoid cells are either found inside the basaloid islands or as the other authors describe, adjacent to them.

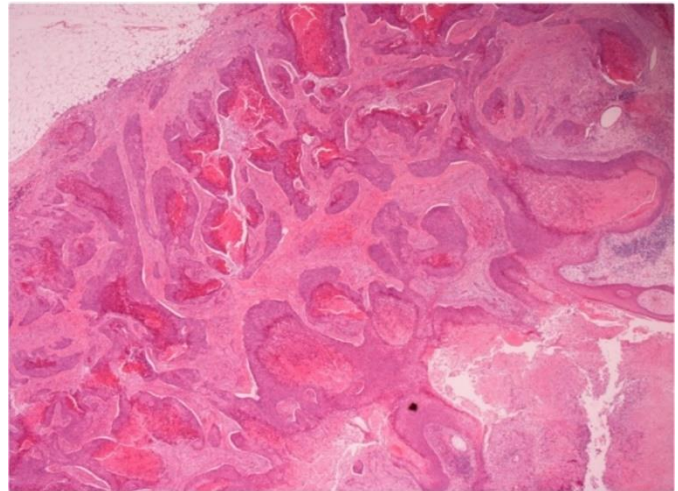


Figure: Invasive, endophytic tumour with islands of basaloid cells invading the dermis and associated with retraction artefact and prominent necrosis

Genetics and Pathogenesis

A recent, very interesting study by Chiang tried to define the genomic alterations that characterize BSC by using the targeted sequencing of 1641 cancer genes from 20 BSCs, whole exome sequencing from 16 BCCs, and a mixture of previously published whole-exome and whole-genome datasets from 52 SCCs. According to the findings of this study, the majority of BSCs had underlying PTCH1 and SMO mutations in addition to mutations in other known BCC drivers such as MYCN, PPP6C, GRIN2A, CSMD3, DCC, PREX2, APC, PTEN, and PIK3CA. These data support the theory that the HH signaling pathway is the initial driver of BSC and that this tumor probably originates as a BCC that partially squamatizes through the accumulation of ARID1A mutations and RAS/MAPK pathway activation.

3. Treatment

Wide Surgical Excision vs Mohs' Micrographic Surgery (MMS), Although a very high recurrence rate, reaching 45%, has been reported after wide surgical excision, this method remains a first line treatment choice. Furthermore, it is suggested that surgical excision should be followed by the evaluation of a lymph node and distant metastases, and of course, close clinical follow up for recurrence and metastasis.

Based on the results of recent studies, MMS is considered the optimal surgical option for BSCs, since it is linked to lower recurrence rates compared to the wide surgical excision. Analytically, 8.9% recurrence rate with MMS that is much lower than the 45% observed with wide surgical excision, but significantly higher when compared with the recurrence rates reported for BCCs and SCCs Sentinel Lymph Node Biopsy (SLNB).

In tumor size >2 cm in addition to lymphatic and perineural invasion are significant determinants of SLN micro metastasis.

Radiotherapy–Chemotherapy

It is indicated in the scenario of positive surgical margins and the inability to re-excise the tumor in order to achieve them, or in cases with local lymph node metastasis, in a few cases of metastatic BSCs in the literature, palliative chemotherapy has been used (Adriamycin, cystaplatin).

4. Case Report

Patient old 25 years with past medical of recurrent nodule in the scalp, occipital area four times, presented with brwony-pimk nodule in the scalp at site of previous surgery, size of 1cm wide ×2cm long ×1cm raise, with a telengectasis arroundm, and loss of hair around. Because of recurrence I decided to made incisional biopsy which revealed.



5. Microscopy

The sections show skin with focally thickened epidermis. There is an infiltrative neoplasm within dermis arranged as nodules, nests, and infiltrative and angulated aggregates and sheets set in fibronyxoid stroma. Some of the nests show peritumoral stromal retraction. Tumour cells show predominantly basaloid morphology and show enlarged nuclei with occasional mitoses. Foci of squamoid differentiation with keratin pearls is noted. Some of the nests show adenoid pattern and clear cells in the central portions. Tumour is seen at the margins and base of the biopsy.

6. Impression

BKIN (Scalp): Malignant basaloid neoplasm with squamoid differentiation. Features favour Infiltrative basal cell/ basosquamous carcinoma. Patient was referred for plastic surgery for wide surgical excision. The operation was done successfully and the patient is kept healthy till now.

7. Discussion

The clinical presentation of BSC is nonspecific and it does not present particular differences as compared to a common BCC. The most common clinical scenario in BSC is a long-standing nodule that gradually becomes ulcerated, and sometimes infected and hence, this explains why it was mistaken as infected lesion, and the treatment was simply drainage or simple excision.

8. My recommendations by this report

In undiagnosed skin lesion, dermatology consultation is mandatory. Read carefully of Dermatoscopy report. Incisional biopsy is gold standard of choice to put correct diagnosis before excision. Plastic surgery treatment is recommended

as it decrease recurrence rate either by wide local excision or Mohs.

9. Conclusion

Basosquamous carcinoma (BSC) is a rare subtype basal-cell carcinoma (BCC) that is histologically defined as a BCC tumor with a transitional-zone into squamous-cell carcinoma (SCC). But its biologic and clinical behaviours suggest that BSC is its own type of skin cancer with disease courses similar to cSCC. Most BSCs are found on the head and neck with reports of bony metastases. BSCs are often missed because they look like BCC's superficially, yet under histological examination an underlying transition-zone to SCC is shown. In my case the challenge was correct diagnosis, which I put by incisional biopsy, histology and immunochemistry study.

Treatment by plastic surgeon seem to be the most appropriate by wide surgical excision or Mohs surgery. Radiotherapy has role in recurrence or in involved edges with tumour. Chemotherapy for metastasis was helpful.

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