

## Basosquamous Carcinoma Behaviour in Relation to Basaloid Carcinoma

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### Abstract

Basosquamous carcinoma is a rare type. It considered as an aggressive type of basal cell carcinoma (BCC) this type of BCC has an increased risk of recurrence and metastasesorm. We present the case of a patient of 52 years with an ulcerative lesion of 10 cm in the right buttock treated with radical surgical and adjuvant radiation. This case needs critically to differentiate BSCC from the close terminology of Basaloid squamous cell carcinoma, which is an aggressive variant of squamous cell carcinoma occurring in the upper aero digestive tract. Paucity of literature about BCC compelled us to illustrate this case for study.

**Keywords:** Basosquamous carcinoma; Aggressive

### Introduction

Basosquamous carcinoma (BSC) is a rare epithelial neoplasm with features of both basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) without a transition zone [1,2] and tend to be aggressive, and more likely to metastasize [3,4] as well as difficult to treat and has a poor prognosis [5]. Most common sites of occurrence of BSC are head and neck, mainly involving areas like the nose, ear and peri orbital areas although it can occur in other unusual site as in our case. BSC is usually a slow-growing tumor. Excision is probably the best treatment [6] with clear and wide surgical margins due to the infiltrative growth pattern of this tumor. In spite of that it carries highrecurrence rates [7].

### Case Report

We present the case of a male patient, aged 52 years old admitted through ER, patient is not known to have any medical illness, 5 years back he developed 1 × 1 cm skin lesion in the lower right buttock, he went for dermatologist consultation at that time he was admitted and seen by GS, in which he prescribed topical cream and reassured him, the lesion was increasing in size reaching 10 cm ulcerated and discharge foully bus, it was about 20 cm from the anus, the patient tried traditional medicine and dressing by himself, with no improvement without seeking any further medical advice, he stayed at the same condition until 3 months before admission, he start to have constipation and difficult to evacuate, he admitted to the hospital. Colonoscopy was done to role out GI cancer, biopsy was taken from right inguinal lymph node and anal skin, histopathology result came positive for metastatic basosquamous cell carcinoma with invasion to the anal sphincter. Colostomy was done to keep the area clean before the operation, patient underwent for debridement of the necrotic skin under local anesthesia, the operation done with cooperation of GS and plastic surgeon. Specimen was sent for pathology department for further evaluation (Figure 1), patient kept in prone position for one week. The patient was referred to Oncology Clinic for further treatment. The patient has been followed up, and after 6 months, with no sign of further disease.

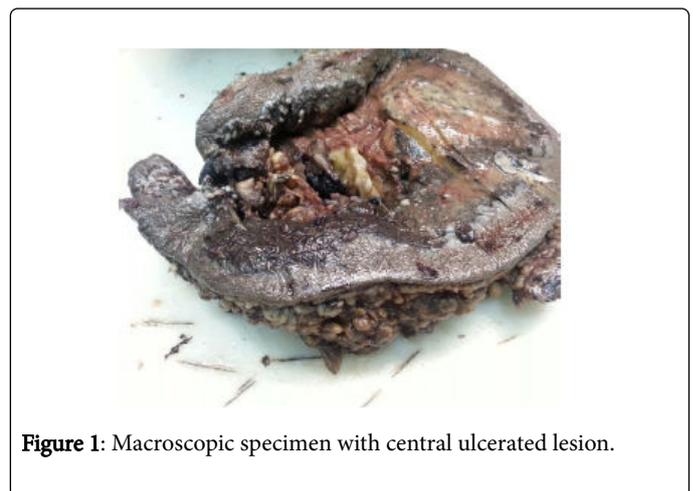
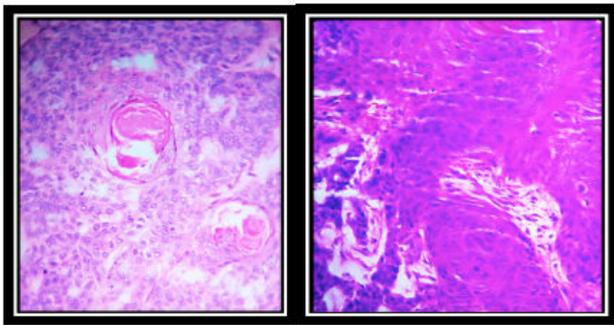


Figure 1: Macroscopic specimen with central ulcerated lesion.

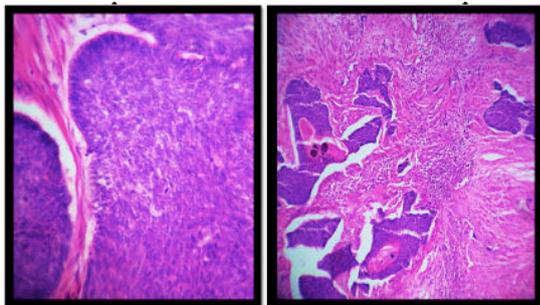
### Histopathology

The gross specimen was composed of ellipse of skin measures 25 × 9 × 7. The outer surface was inked with black ink cm there was central ulcerated area with everted edges and central necroticmaterial. It measures 10 × 5 cm, it was separated from superior margin by 3.5 cm from the inferior margin by 2 cm from the medial margin by 1.5 cm from the lateral margin by 2 cm from the deep margin by 3 cm.

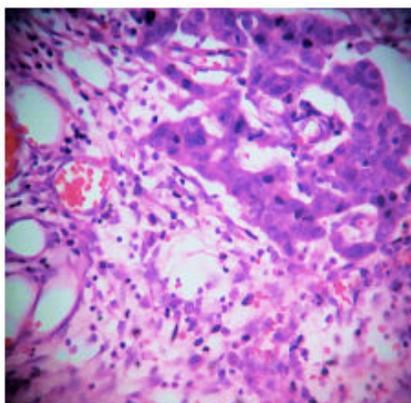
Histological analysis with hematoxylin and eosin (H&E) stain revealed malignant growth forming nest and islands extended throughout the dermis, exhibiting both basaloid and squamous differentiation. The areas had BCC, with large and rounded basaloid cells with peripheral palisading (Figure 2), and SCC, with polygonal squamoid cells with abundant eosinophilic cytoplasm, large nuclei, and prominent nucleoli. frequent mitotic figures are noticed (Figure 3). The transition zone, had intermediate cells and was between the BCC and SCC areas (Figure 4). There is evidence of vascular invasion as well. 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 (Figure 5a and 5b).



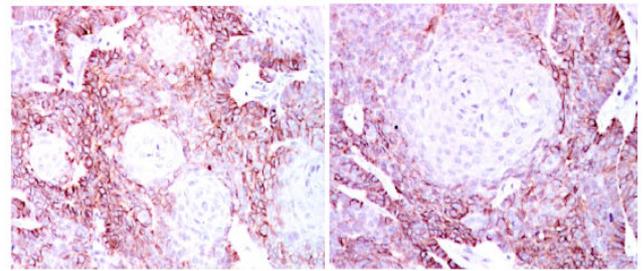
**Figure 2:** BSC with a transition zone appearing abruptly (intermediate×) cells between SCC and BCC areas (H&E, 200×).



**Figure 3:** Basal component with cellular and nuclear pleomorphism and nuclear hyperchromatism (H&E, 200×).



**Figure 4:** Invasion of the tumor cell in blood vessel (H&E, ×400).



**Figure 5:** (a and b) BerEP4 antibody we observed a strong membranary signal in areas of typical basal cells, and absence in areas with squamous cells differentiation. Original power 100×.

## Discussion

BSC is represent the most common skin cancer developing primarily in the sun exposed skin usually in the elderly patient [4,5]. Basal cell carcinoma can be classified into indolent growth subset including superficial, nodular and micro nodular BCC, and into aggressive growth variant including infiltrative, morpheiform (sclerosing) and basosquamous (metaatypical) BCC [6]. The anus is a rare anatomic location of BCC, which is in most cases has solid or adenoid pattern [4,5], while the presence od basosquamous carcinoma of the anus is extremely rare. Differential diagnosis from basal cell carcinoma and from basaloid carcinoma is of critical significant [3-5] Basosquamous carcinoma is a rare aggressive variant of basal cell carcinoma accounting for 1.2-2.7% with an increase risk of recurrence (21-51%) and metastasis (5%) compared to basal cell carcinoma [7]. Basosquamous carcinoma was first described in the early twenty century and now has been recognized as type of basal cell carcinoma [7-9] histopathologically basosquamous carcinoma demonstrate area of basal cell carcinoma and area of squamous cell carcinoma with or with out transition zone [7]. Malignant basal cell with peripheral palisading nuclei and scant basophilic cytoplasm and malignant squamous cell with larger polygonal cell with abundant eosinophilic cytoplasm and large open nuclei with prominent nucleoli are present within collagenized, fibroblast-rich stroma [7-9]. Immunohistochemistry positive for AE1 and AE3 both of basal cell and squamous component and positive for Ber-EP4 for the basal cell component and for CAM.52 for the squamous component [4,5,7,8,10,11]. Basaloid squamous cell carcinoma is rare aggressive subtype of squamous cell carcinoma, that was first described in the late twenty century [10-12] with poor prognosis, and an increase risk of lymph node involvement (40-70%) and distant metastasis (75%) compared to squamous cell carcinoma [11]. Histopathologically, basaloid carcinoma is chractrized by presence of basaloid cell and squamous cell [12]. The basaloid cell which have the exaggerated nuclear to cytoplasmic ratio, form nest, lobules and cribriform pattern [10], while a definable area of squamous cell carcinoma must be present [10-12]. Immunohistochemistry reveal positivity for 23BE12, EMA and focally CEA [10]. Differential diagnosis between basosquamous carcinoma and basaloid carcinoma should be made as both tumor can demonstrate combination of basoaloid and adenoid features and can be found in the squamous zone, and is crucial as the later is more aggressive than the first one, and in the large majority of the cases can be made in the standard H&E which show more cellular and nuclear polymorphism less conspicuous peripheral palisading,

atypical mitosis, and large eosinophilic necrotic area in basaloid carcinoma [4,5,10]. However this can become particularly difficult in small biopsy where immunohistochemistry can aid in the differential diagnosis. Basosquamous carcinoma is positive for Ber-EP4 and negative for EMA, while basaloid carcinoma is positive for 34BE12 and EMA [5,10,11,13]. In the current case diagnosis was made based on the morphology and immunohistochemistry result

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