

Case Report

Metatypical Basal Cell Carcinoma - an Uncommon Interesting Morphological Variant of Basal Cell Carcinoma

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ABSTRACT

Background: Metatypical Basal Cell Carcinoma is rare variant of basal cell carcinoma which shows features of both basal cell carcinoma and squamous cell carcinoma.

Case Report: The case being discussed below is of a 69-year-old female who presented with an ulcerated lesion below the right eye. The biopsy from the margins of the ulcerated lesion was carried out which revealed characteristic features of basal cell carcinoma with focal contiguous areas of round to polygonal cells with vesicular nuclei showing features of moderate to marked nuclear atypia along with focal formation of parakeratotic whorls. Focal areas showing sheets of dysplastic cells with marked intercellular oedema reminiscent of acantholysis were also noted.

The case being presented here is unique in the sense that contiguous areas of basal cell carcinoma and squamous cell carcinoma were noted in the same tumours with space continuity, which is diagnosed as metatypical carcinoma, which has definite implications for clinical management and outcome of the tumour.

Key words: metatypical, basal cell carcinoma, morphological variant.

INTRODUCTION

Basal cell carcinoma, being the most common malignancy of the skin, accounts for 80% of all skin cancers with the highest incidence of 1-2% per year observed in the region of around the equatorial regions such as Australia and having Fitzpatrick skin type 1 or 3 with highest exposure to ultraviolet radiation from sun.

Metatypical Basal Cell Carcinoma (MTBCC) also often synonymously referred to as basosquamous carcinoma or basisquamous carcinoma is an uncommon morphological variant of basal cell carcinoma which shows histopathological characteristics of both basal cell carcinoma

and squamous cell carcinoma with clinically prognostic features of both the malignancies.

Metatypical basal cell carcinoma was first described by MacCormac in 1910 as a histological variant in a series of basal cell carcinoma which are also eponymically known as rodent ulcers in which there was co-existence of basal cell and squamous cell tumours with spatial continuity. [1] Though considered to be a histomorphological variant of basal cell carcinoma, however, it was considered to be a different clinical entity inasmuch as it has its own progression pattern and metastatic potential which is reported to be 7.4%. [2]

CASE REPORT

A 69-year-old woman presented to the out-patient department of a tertiary care hospital with an ulcerated lesion below the right eye. She had no previous history of any chronic debilitating illnesses or similar lesions in the past. The biopsy from the margins of the ulcerated lesion was carried out and histopathology laboratory received tiny fragments of skin tissue.

On microscopic examination of the sections from the superior margin of the lesion showed skin tissue lined by hyperkeratotic and acanthotic stratified squamous epithelium showing mild hyperplasia of melanocytes. Subjacent dermis showed multiple polymorphic nests of basaloid cells with bland round to oval nuclei surrounded by neatly arranged cells in a palisading manner. At places some of the nests of cells were highly pleomorphic

with round to oval to focally spindled nuclei with mild to moderate nuclear pleomorphism and prominent nucleolus. In some areas, nests of basaloid cells were interspersed by round to polygonal cells with pleomorphic basaloid nuclei with prominent nucleoli and formation of parakeratotic whorls with occasional nests of highly dysplastic squamous cells showing extensive intercellular oedema, reminiscent of focal acantholysis, along with formation of parakeratotic whorls.

Sections from superior and lateral margins showed tumour involvement of the entire superior margin while the inferior margin did not show any involvement of the tumour. Focal areas of pigmentation incontinence were seen. Medial and inferior margins also showed no evidence of tumour involvement. No angiolymphatic and perineurial involvement was noted.

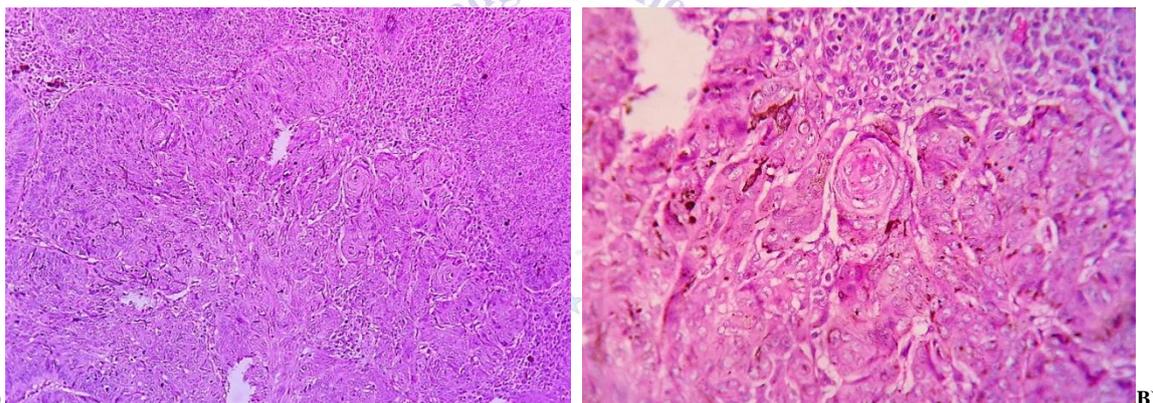


Figure 1: A and B. Photomicrograph depicting low power (10X) and high power (40X) view of sheets of dysplastic round to oval to polygonal with focal formation of parakeratotic whorls (keratin pearls) along with areas of basal cell carcinoma (upper part) (H and E, 40X)

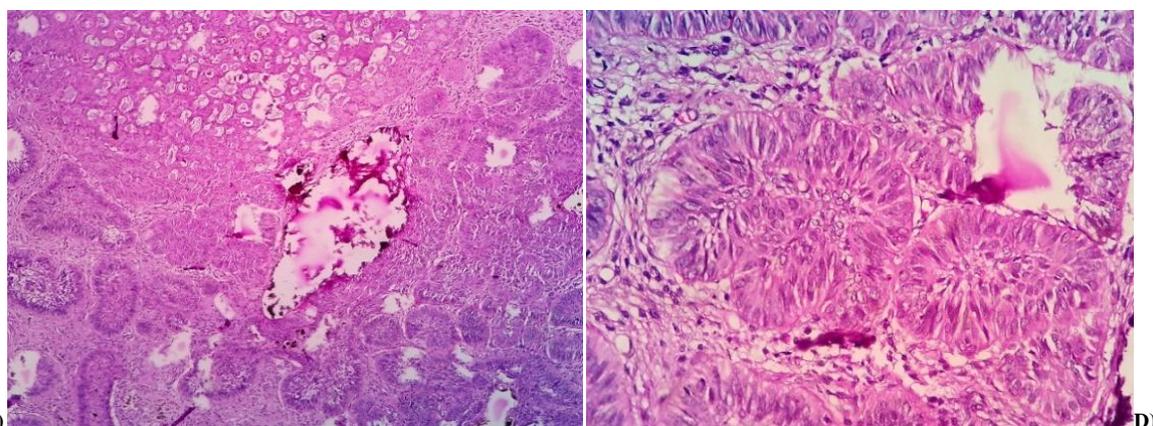


Figure 2: C. Photomicrograph depicting basal carcinoma with areas of squamous cell carcinoma featuring acantholytic pattern (H and E, 10X); **D.** High power (40X) view showing nests of basaloid cells with peripheral palisading

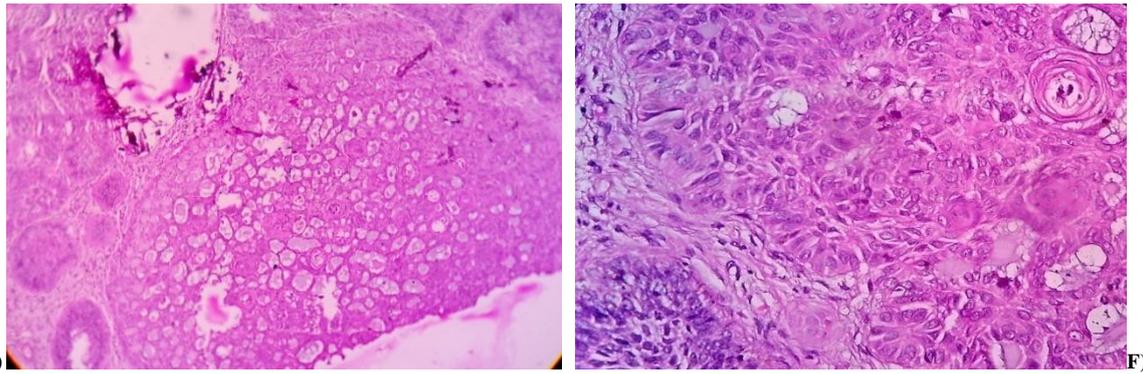


Figure 3: E. Photomicrograph depicting areas of Basal cell carcinoma abutted by areas of squamous cell carcinoma composed of acantholytic sheets of round to polygonal cells (H and E, 10X) F. High power (40X) view showing focal poorly formed keratin pearls.

DISCUSSION

According to available literature, the most common type of carcinoma seen in patients in UK, US and Australia are non-melanoma skin cancers. The highest incidence of non-melanoma cancers is seen in Australia with a range of 1-2% per year.^[1] Among the non-melanoma cancers, basal cell carcinoma (BCC) occurs due to high UV exposure and is also seen in populations with Fitzpatrick skin type I or II. It is observed that only two-thirds of the BCCs occur in the sun-exposed areas and morphologically the nodular variant of BCC being the most common type, which presents with raised and rolled borders.^[1]

Metatypical basal cell carcinoma (MTBCC) shows features of both basal cell and squamous cell carcinoma^[2] and is also referred to as baso-squamous carcinoma. It is histologically classified into two main types; with the intermediate variant showing tumour lobules or nests composed of basaloid cells which later mature into paler cells with abundant cytoplasm and the mixed type showing areas of grouped squamous cells and also focal keratinization.^[1] Amongst these the intermediate lesions have a tendency to recur and metastasise.^[2]

Metatypical basal cell carcinoma is common in the older age group with male preponderance, which is localized to sun-exposed areas of the body like head and neck region^[3] with the first case being reported in a 46-year-old man with metastasis to submaxillary lymph node in the year 1894.^[2]

Diagnosis of metatypical basal carcinoma is generally easy and is generally made on conventional light microscopy, but sometimes immunohistochemical studies are useful in diagnosis of ambiguous MTBCC as areas of BCC are Ber-EP4 and AE1/AE3 positive whereas the squamous cell carcinomas are positive for AE1/AE3 and CAM5.2.^[1]

Metastatic basal cell carcinoma being a very rare condition has very limited treatment modalities which include surgery, radiotherapy and chemotherapy with very poor prognosis, which could be attributed to the malignant squamous component since squamous cell carcinoma is more aggressive in progression and metastasis.¹ Wide surgical excision of the lesion would be adequate in clinical management of the condition with Moh's surgery being the preferable line of management for lesions in the high-risk areas such as ears, middle face, recurrent or large tumours and those areas of that have bearing upon cosmetic importance.^[1]

CONCLUSION

Metatypical basal cell carcinoma is very uncommon and its diagnosis depends on detailed clinical history and a good comprehensive biopsy of the lesion as its diagnosis has prospective implications in the outcome of the tumour since the prognosis of metatypical basal cell carcinoma is supposed to be relatively not in conformity with conventional basal cell carcinoma as the tumour progression and potential for lymph node and distant

metastasis is observed to be higher in metatypical basal cell carcinoma.

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