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Case Study

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ADENOID VARIANT OF BASAL CELL CARCINOMA: CASE REPORT OF A RARE CUTANEOUS TUMOR

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ABSTRACT

Basal cell carcinoma is the most common slow growing and locally aggressive cutaneous malignant tumor. There are many histopathological variants of BCC such as cystic, adenoid, morpheaform, infundibulocystic, fibroepithelial, pigmented and miscellaneous variants like clear cell, signet ring cell, granular, giant cell, adamantoid, schwannoid are even rarer<10% of BCC. We report a case of 75 year old female who presented with asymptomatic nodule on lower back. Microscopic examination revealed adenoid variant of basal cell carcinoma.

KEYWORDS: Adenoid, Basal cell carcinoma.

INTRODUCTION

Basal cell carcinoma is common form of cutaneous malignancy which accounts for around 70% of all malignant lesions of the skin; about 75% of non melanoma skin cancers and 65% of epithelial tumors.[1-3,6-8] Approximately, exact incidence is not known. However the reported incidence varies between 1.3% and 20.91%.[4] It is frequent after fourth decade of life and peak incidence is at sixth decade with male preponderance.[9] It usually appears on the sun exposed areas such as head and neck. However it also occurs on non sun exposed areas like axilla, leg, buttock, breast, groin, back, eyelid, cervix and prostrate.[14-15] Adenoid variant of basal cell carcinoma is a rare variant of basal cell carcinoma with limited number of case reports.

CASE REPORT

A75 year old female presented with a slow growing nodular swelling on the lower back for last six months. The swelling was slowly progressive till it reached the present extent measuring 4x3x1cm.It was firm, mobile, non tender, the overlying skin was normal and could not be lifted over the swelling. There was no history of any comorbidity, irradiation, arsenic intake, immunodeficiency, and trauma or drug intake. FNAC of the swelling was done which was hypercellular. It showed cohesive clusters forming club shaped smooth contours of epithelial fragments [Figure 1]. The cells were small round to oval with overcrowding, overlapping, minimal anisonucleosis, hyperchromatic, dense coarse chromatin, inconspicuous nucleoli and minimal amount of cytoplasm. Few of the clusters showed peripheral palisading. Many epithelial fragments showed pink amorphous material in between the cells and also in the background. The cytomorphological diagnosis of possibility of adnexal neoplasm was given. Excision of the swelling with adequate margins was done. On gross examination, a solid greyish white multinodular lesion was seen just below the skin measuring 3.8x2.5x1.5 cm. Microscopic examination of H&E stained sections showed no ulceration with proliferation of basal cells arranged in lace like pattern and gland formation around spaces containing amorphous eosiniphilic material [Figure 2A]. The cells showed dense chromatin with little amount of cytoplasm. The surrounding stroma showed retraction spaces [Figure 2B]. No lymphovascular or perineural invasion was seen. All the margins were free of tumor. On immunohistochemistry cells were strongly positive for BerEp4 [Figure 3A] while EMA positivity was detected in some luminal areas [Figure 3B]. Based on the histomorphological and immunohistochemistry the diagnosis of Adenoid variant of Basal cell carcinoma was made. On follow up of the patient for 6 months there was no recurrence.

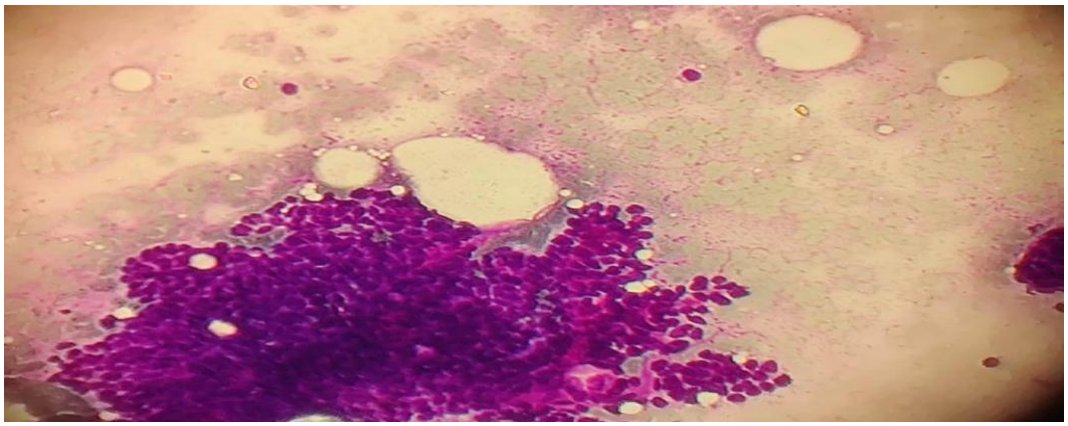

Figure 1: FNAC smear showing cohesive cluster of epithelial fragment with smooth contour. The cells are round to oval with nuclear overcrowding, overlapping, mild anisonucleosis and inconspicuous nucleoli (H&E, 100X).

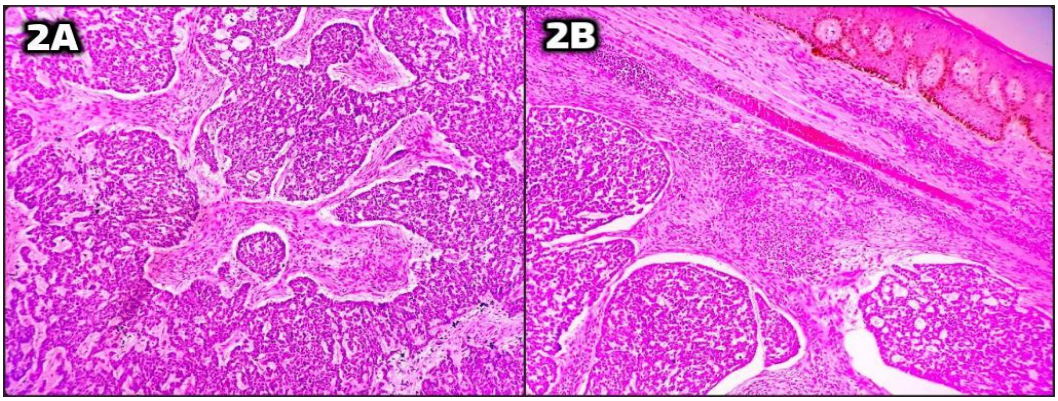

Figure 2: Adenoid Basal Cell Carcinoma. (A) Proliferation of basal cells arranged in lace like pattern and gland formation around spaces containing amorphous eosiniphilic material. (B) The surrounding stroma showing retraction spaces (H&E, 100X).

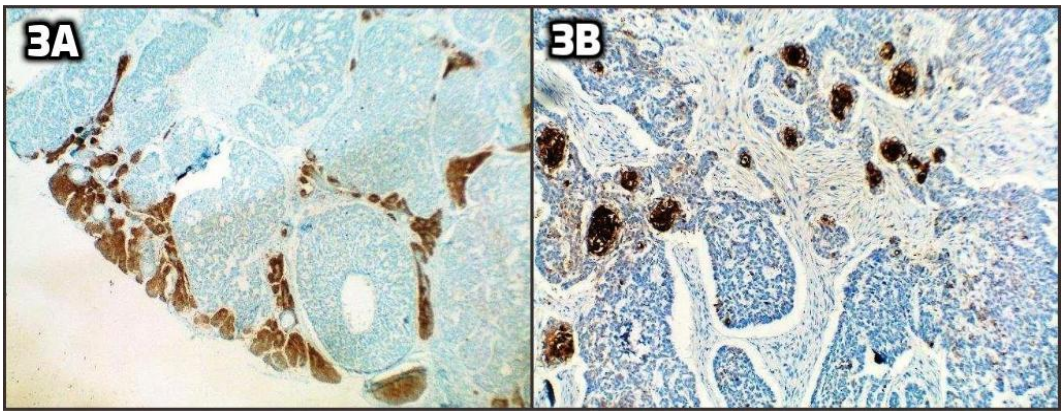

Figure 3: Immunohistochemistry. (A) Positive immunoreactivity for BerEp4 (100X). (B) EMA positivity in some luminal areas (100X).

DISCUSSION

In year 1827 it was described by Jacob as 'ulcus rodens'.[6] In 1903 the present terminology of BCC was proposed by Krompecher.[5] BCC represents approximately 70% of all malignant diseases of the skin, around 75% of non melanoma skin cancers and around 65%of epithelial tumors.[6-8]

It commonly affects adults after 4thdecade of life and peak incidence is at around 6thdecade. Males are much more commonly affected than females.[9] Our subject was an elderly lady who was 75 years old. The various etiological factors implicated in pathogenesis of this malignancy are exposure to sunlight, arsenic ingestion, radiation, scars and immunocompromised status.[10-11] It also occurs on the areas not exposed to sun like lower leg, axilla,[12] breast, periungual,[13] palms, soles, glutei, groin and genitals[14-15]Niwa, et al. reported five cases of BCC at axilla, groins, foot and pinna.[16] Adenoid BCC has been reported at various sites including axilla, back,

leg, inner canthus of eye, chin, forehead, rarely even cervix and prostrate.[17] In our case it was on the back which is the common site for adenoid variant of BCC. Multiple BCC's are usually associated with genodermatosis such as Basal cell nevus syndrome, Bazex syndrome, Rombo's syndrome and McKuisck syndrome or immunocompromised states.[18]

BCC's have been classified into undifferentiated (solid) and differentiated forms (eccrine, sebaceous, keratotic, pleomorphic, adenoid, infundibulocystic, apocrine, follicular, fibroepithelioma of Pincus). The undifferentiated forms includes superficial, nodular, micronodular, morpheaform and infiltrative BCC. Nodular BCC is the most common type of BCC among the 66 variants of BCC that have been described in the literature. The adenoid type is one of the rare variants of BCC and its exact incidence is not known. However, Hussein et al. reported eyelids as the preferential site for adenoid BCC.BCC's are rarely known to metastasize. BCC more than 5cm size in diameter and age less than 35 years have significant risk of morbidity and mortality. The adenoid variant of BCC presenting as non ulcerated nodular swelling must be differentiated from adenoid cystic carcinoma which presents as similar histopathological features.

Cutaneous Adenoid Cystic carcinoma is close differential which affects middle aged and elderly individuals. Commonest site of involvement is scalp, other sites are chest, abdomen, back, eyelid and perineum. It presents as slow growing asymptomatic nodule. On clinical examination it is firm, tender may present with pruritis and alopecia. On cytological examination it shows three dimensional cell clusters and finger like tissue fragments and hyaline globules surrounded by tumor cells. On histopathological examination it showed basaloid cells in mid to deep dermis. The cells are arranged in cords and islands forming tubuloglandular and cribiform arrangement. The lumina of tubular structures and the surrounding stroma shows mucin or eosinophilic material. The true lumina are surrounded by prominent basement membrane material which is PAS positive and diastase resistant. IHC used for differentiation between the two is EMA, CK7, bcl2, c-kit, CEA and BerEp4.

The clinical behaviour of BCC is generally favourable, but in few cases it may grow aggressively and infiltrate into the surrounding structures.

CONCLUSION

Adenoid variant of BCC is rare. BCC is more commonly found in the sun exposed areas and presentation in the lower back makes it rarer. As it histomorphologically mimics Cutaneous adenoid cystic carcinoma of skin its identification is very important in view of management and prognosis.

REFERENCES

1. Cockerell CJ, Tran KT, Carucci J, et al. Basal cell carcinoma. In: Rigel DS, Robinson JK, Ross M et al., editors. Cancer of the skin. 2nd ed. Philadephia: Elsevier Saunders, 2011; 99-123.
2. Kim DP, Kus KJB, Ruiz E. Basal cell carcinoma review. Hematol Oncol Clin North Am, 2019; 33: 13-24.
3. Koyuncuer A. Histopathological evaluation of non-melanoma skin cancer. World J Surg Oncol, 2014; 12: 159.
4. Rao GA. Coexistence of Solid (Nodular) and Differentiated (Adenoid) Basal cell carcinoma at the same anatomical site. Indian J Dermatology, 2015; 60(5): 524.
5. Abulafia J. Epiteliomas cutaneous ensayo de classification histogenetica. An Bras Dermatol, 1963; 38: 14-31.
6. Jacob A. Observations respecting an ulcer of peculiar character, which attacks the eyelids and other parts of the face. Dublin Hosp Commun Med Surg, 1827; 4: 232-9.
7. Panda S. Nonmelanoma skin cancer in India. Indian J Dermatol, 2010; 55: 373-8.
8. Samarasinghe V, Madan V. Nonmelanoma skin cancer. J Cutan Aesthet Surg, 2012; 5: 3-10.
9. Tambe SA, Ghate SS, Jerajani HR. Adenoid type of basal cell carcinoma: rare histopathological variant at an unusual location. Indian J Dermatol, 2013; 58: 159.
10. Black MM, WaldenVM. Basal cell carcinomatous change in the lower leg: A possible association with chronic venous stasis. Histopathology, 1983; 32: 350-3.
11. Nogita T, Kamikawa T, Kawashima M.Significance of pre-existent conditions in basal cell carcinoma on the lower extremities. Int J Dermatol, 1993; 32: 350-3.
12. Batti R, Bruscaagin C, Inselvini E, et al. Basal cell carcinoma of covered and unusual sites of the the body. Int J Dermatol, 1997; 36: 503-5.
13. Bhagchandani L, Sanadi RE, Sattar S, Abbott RR.Basal cell carcinoma presenting as finger mass. A case report. Am J Clin Oncol, 1995; 110: 880-4.
14. Nagendra Naidu DV, Rajakumar V.Perianal basal cell carcinoma-An unusual site of occurrence. Indian J Dermatol, 2010; 55: 178-80.
15. Bogdaniae B, Smud S, Bagatin D, Nola M, Mijatoviae. Giant basal cell carcinomaof the back: A case report and review of literature. Coll Antropol, 2009; 33: 315-8.
16. Niwa A, Pimentel E.Basal cell carcinoma in unusual locations.An Bras Dermatol, 2006; 81: S281-4.
17. Fresini A, Rossiello L, Severino BU, Del Prete M, Satriano RA. Giant basal cell carcinoma.
18. Tsai KY, Tsao H. The genetics of skin cancer. Am J Med Genet C Semin Med Genet, 2004; 131 C: 82-92.