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# TRICHOBLASTOMA– A RARE CASE REPORT

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**ABSTRACT**
Tumors with hair follicular differentiation are difficult to differentiate due to clinical similarity of the lesions. We report a case of 66 year old female who presented clinically as a basal cell epithelioma, but when subjected to histopathology, turned out to be a case of trichoblastoma. This case is reported to emphasize the difficulty posed by adnexal tumors in clinical diagnosis.

## INTRODUCTION

Adnexal tumors are divided into tumors arising from the follicular epithelium, from sweat and sebaceous glands. These tumors are usually benign and their clinical appearance is not often diagnostic. Hence, histopathological examination and immunohistochemistry are needed to make a definitive diagnosis.

## CASE REPORT

A 66 year old female was referred to skin OPD by a general physician to rule out basal cell epithelioma. She presented with complaints of an asymptomatic raised skin lesion over the left side of the forehead, near the hairline, for the past one year. The lesion initially started as a small papule, which gradually increased to the present size. There was a crust formed over the lesion, which was removed by the patient. There was no history of bleeding or sudden increase in size of the lesion. The patient was not a known diabetic or a hypertensive. Dermatological examination revealed a well defined, solitary, pigmented nodule measuring 3×3cms, over the left side of the forehead near the hairline. The swelling was firm in consistency. A pigmented crust was present over the lesion. [Fig 1] No active discharge, warmth or tenderness was present. No telangiectasia or regional lymphadenopathy was noted. Routine investigations and system examination was normal. Differential diagnoses considered were basal cell epithelioma (BCE) and solitary trichoepithelioma.

A 4mm punch biopsy was taken from the lesion and sent for histopathological examination. It revealed ,thinned out epidermis(atrophy) with the dermis showing a tumor mass composed of oval to polygonal cells with dark staining nuclei arranged in islands, cords and trabeculae enclosing cystic spaces in a myxoid stroma (peripheral palisading). [Fig 2, 3] Due to lack of facilities immunohistochemistry was not done.

## DISCUSSION AND CONCLUSION

Based on clinical and histopathological features, differential diagnosis considered in our case were nodular basal cell carcinoma, solitary trichoepithelioma and trichoblastoma. Nodular basal cell carcinoma presents as a small nodule which usually shows few telangiectatic vessels on its surface. The nodule gradually increases in size and undergoes central ulceration that consists of a slowly enlarging ulcer surrounded by a pearly rolled border, the so called "rodent ulcer". Nodular basal cell carcinoma clinically mimics solitary trichoepithelioma, and trichoblastoma. Histopathology of NBCC consists of nodules of basaloid cells with a peripheral palisade

arrangement; nuclei are uniform and nonanaplastic with no abnormal mitosis. Retraction artifacts are present. Hence, in our case, NBCC is ruled out due to the presence of isolated tumor mass in the dermis with no atypical cells and no retraction of stroma [1].

Trichoblastoma, a distinct variant of trichoepithelioma, is a small benign hair follicle tumor originating from follicular germinative cells [2]. It typically presents as a solitary mass of small skin-coloured to brown or blue-black papules or nodules, usually 1-2 cm in diameter [3]. They most commonly occur on the face and scalp, thighs and peri-anal region of adults, around 40-50 years of age [4].The main difference between trichoblastomas and trichoepitheliomas is the depth at which they arise in the dermis. Trichoblastomas are found in the deep dermis and subcutaneous tissue, whereas trichoepitheliomas are more superficial. Histopathologically, all trichoblastomas and trichoepitheliomas are linked by a predominance of follicular germinative (basaloid) cells with enveloping fibrocytic stroma that varies in degree [5, 6]. In classical trichoepithelioma, the fibrocytic stroma is conspicuous and constitutes as much as half of the cellularity of the lesion in a given cross section. In contrast, in trichoblastoma there may be a vast predominance of follicular germinative cells, arrayed as either small or large nodules, with only scant intervening sclerotic stroma [7]. Trichoblastoma are characterized by large fenestrations containing follicular stroma.

Trichoepitheliomas show trichoblasts with small fenestrations associated with stroma that shows clefts but not retraction artifacts. Horn cysts are often associated in trichoepitheliomas. Immunohistochemical stains CD34 and CD10 stains fibroblastic stroma in case of trichoepithelioma/trichoblastoma and stains epithelial layer in case of basal cell epithelioma [8]. Bcl-2 stains the outermost epithelial layer in case of trichoepithelioma/trichoblastoma; in contrast BCE stains diffusely [1].

Trichoblastoma is a benign follicular tumor that requires no treatment. It may be excised for cosmetic reasons or if they occur in functionally sensitive areas. Treatment options include curettage and electrodessication or surgical excision.

**Figure 1. Picture showing a well-defined pigmented solitary nodule measuring 3X3cms with central crusting located on the left side of the forehead near the hairline.**

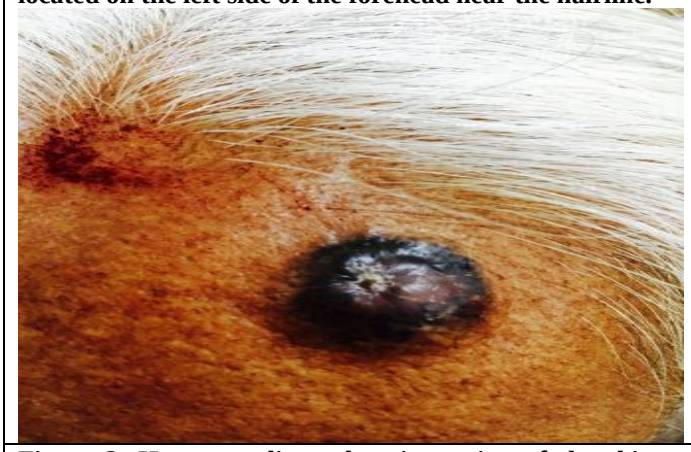


**Figure 2. Haematoxylin and eosin section of the skin, under low power (Magnification x10) showing thinned out epidermis and a tumor mass in the dermis.**

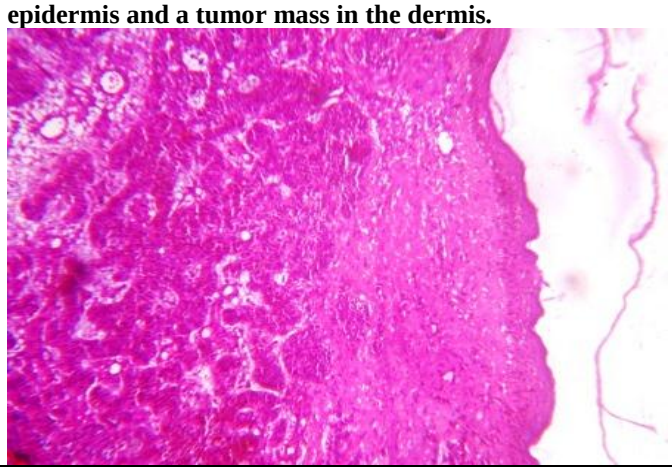
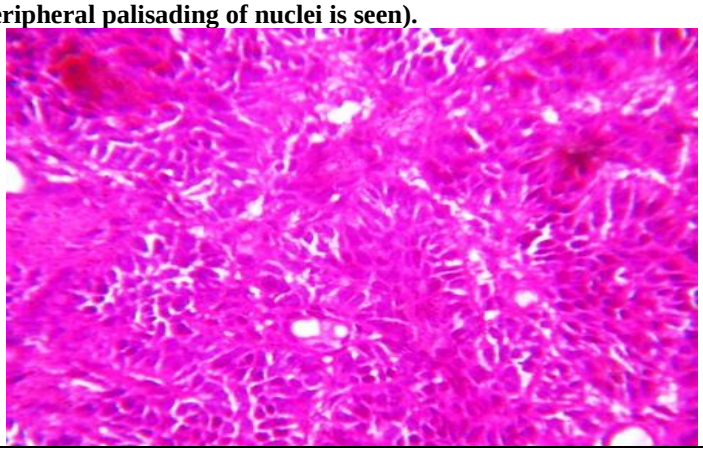


**Figure 3. Haematoxylin and eosin section of the skin, under high power (Magnification x40) shows a tumor mass composed of oval to polygonal cells with dark staining nuclei arranged in islands, cords and trabeculae enclosing cystic spaces in a myxoid stroma(peripheral palisading of nuclei is seen).**



**REFERENCES**

1. Poniecka AW, Alexis JB. (1999). An immunohistochemical study of basal cell carcinoma and trichoepithelioma. *Am J Dermatopathol*, 21(4), 332-336.
2. WHO Classification of Tumours. (2006). Pathology & Genetics: Skin Tumours. Ed LeBoit P, Gunter B, Weedon D, Sarasin A. IARC Press: Lyon 2006.
3. Slater D. (1987) Trichoblastic fibroma. *Histopathology*, 11, 327-31.
4. Wong TY, Reed JA, Suster S. (1993). Benign trichogenic tumours: a report of two cases supporting a simplified nomenclature. *Histopathology*, 22, 575-80.
5. Blake Gilks C, clement CB, Wood WS. (1989). Trichoblastic fiboma. *Am J Dermatopathol*, 11, 397-402.
6. Altman DA, Mikhail GR, Johnson TM et al. (1995). Trichoblastic fibroma. *Arch Dermatol*, 131, 198-201.
7. Betten Court MS, Prieto VG, Shea CR. (1999). Trichoepithelioma: 19 year clinicopathologic re-evaluation. *J Cutan Pathol*, 26, 398-404.
8. Pham TT, Selim MA, Burchette JL Jr, Madden J, Turner J, Herman C. (2006). CD10 expression in trichoepithelioma and basal cell carcinoma. *J Cutan Pathol*, 33, 123-8.