Case Report

Trichoblastoma – A rare case of benign skin lesion

Diwagar N [1], Chander SK [2*], Sulochana S[3], Chitra S[4]

[1]Assistant Professor, [2]Postgraduate, [3]Professor, [4]Professor, Department of Pathology , Saveetha Medical College and Hospital, Saveetha Nagar, Thandalam, Chennai 602105, Tamil Nadu , India

ABSTRACT

Trichoblastoma is a rare type of benign hair follicle tumor arising from follicular germinative cells, presenting as a solitary mass of brown/black nodule usually on head , neck and other extremities of body. It can arise at any age and sex, however, it is more common among adults between the ages of 40 and 50 years. It is a dermal, epithelial and stromal neoplasm consisting of proliferation of basaloid cells in a stroma resembling perfollicular fibrous tissue. Although benign, surgical biopsy is necessary to analyze under histopathological examination for diagnosing and differentiating trichoblastoma from basal cell carcinoma or harbor malignant characteristics. It typically has a favorable prognosis, with a very low incidence of recurrence, progression or association with malignancy. Here we present a case of a 67 year old female who presented with a nodular swelling on the right side of nose for past 3 months. The swelling was painless. On examination the nodular swelling was 2 x 2 x 1cm and firm in consistency. An excision biopsy was done. Histopathological examination showed features of trichoblastoma. This case is reported here due to its extreme rarity.

Keywords: Trichoblastoma, benign hair follicle tumor, germinative cell tumor.

Address for correspondence: Chander S.K., Postgraduate, Department of Pathology, Saveetha Medical College and Hospital, Saveetha Nagar, Thandalam, Chennai 602105.

E-mail: sundereshmbbs@gmail.com

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Introduction

Trichoblastoma is a extremely rare benign tumor that develops from germ cells of the hair follicle. It appears as a papule or a skin-colored nodule that grows slowly[1,4]. The unifying histopathologic characteristic is the presence of follicular germinative (basaloid) cells. It is important to establish a definitive diagnosis even though trichoblastoma is a benign neoplasm, because of its association with a basal cell carcinoma[6] and the extremely rare chance that it may undergo a malignant change[7]. Complete surgical excision with adequate margin and primary closure of the site is the required treatment of choice. adequate margin and primary closure of the site is the required treatment of choice.

Case Report

We report the case of a 67-year-old female patient who presented a well-defined nodular tumor of 2×2×1cm, on the right side of nose for past 3 months. The patient had no other skin lesions, nor palpable lymphadenopathy. Clinical examination suggested two differential diagnosis as nodular basal cell carcinoma and Trichoepithelioma. Excisional biopsy was performed and the histopathological diagnosis

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revealed trichoblastoma.

Histopathological features showed a nodular tumor with adnexial structure composed of basaloid cells showing follicular differentiation (Fig 1,2). The intervening stroma appears fibrous which was composed of fibroblasts and lymphocytes (Fig 3). The stroma resembles as perifollicular fibrous sheets and shows focal aggregation to the periphery of basaloid cells resembling a papillary mesenchymal body. The margins of the lesion were clear. All these findings helped in the confirmation of the diagnosis of trichoblastoma.

Discussion

Trichoblastoma is a rare, benign skin tumor of rudimentary hair follicles. Its clinical appearance can range from a nodular lesion in the case presented. On histopathological appearance, trichoblastoma can be further categorized as large nodular, small nodular, retiform, cribriform, racemiform, or columnar

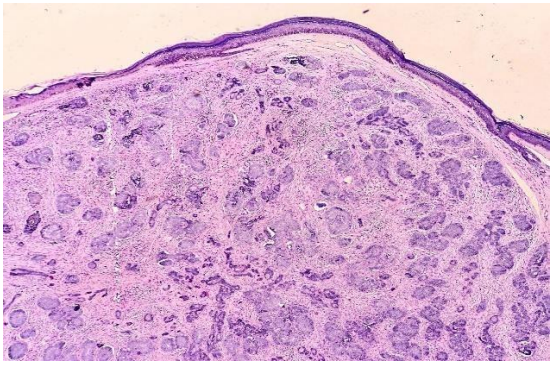

Figure 1: Nodular tumor with adnexial structure.

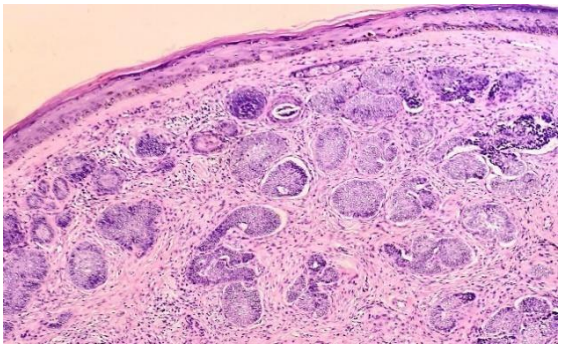

Figure 2: Tumor composed of basaloid cells showing follicular differentiation

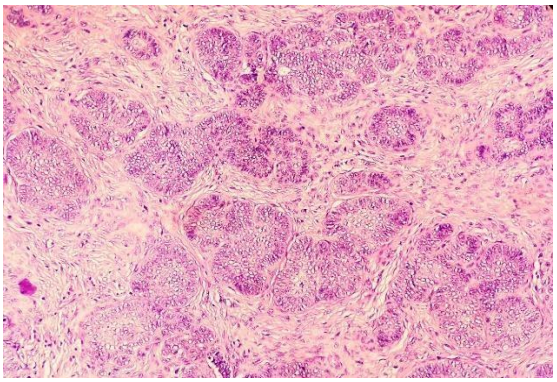

Figure 3: Stroma resembles as perifollicular fibrous sheets and shows focal aggregation to the periphery of basaloid cells.

in patterns[1]. The unifying characteristic among all types is the presence of follicular basaloid cells [1,4]. The basaloid proliferation in which tumour cells are arranged in cords, sheets, or discrete clusters surrounded by fibrous stroma. Epidermal connection, atypia or mitosis are absent. Clefts are absent at stromal interface [5]. In nodular basal cell carcinoma and trichoepithelioma must be differentiated histologically [6]. In this case, basaloid and mesenchymal cells were seen arranged in nests and separated by a fibrous stroma. Myxoid stroma and stromal retraction or clefting around basaloid islands were absent which were characteristic of basal cell carcinoma [6]. Absence of keratotic cysts ruled out trichoepithelioma [2]. However, because of its association with basal cell carcinoma and the chance that it may transform into trichoblastic carcinoma, additional biopsy or complete surgical excision or Moh's micrographic surgery should be considered if there is uncertainty about the diagnosis[8].

Malignant transformation of trichoblastoma may rarely turn over into a trichoblastic carcinoma, trichoblastic sarcoma and trichoblastic carcinosarcoma which is exceedingly rare. Malignant transformation most commonly presents as a long-standing lesion that suddenly enlarges. There is limited available data concerning the behavior and prognosis of malignant trichoblastic neoplasms; however, distant spread and death have been reported but very rarely and this aggressive behavior may be more common in sporadic cases [7].

Conclusion

Trichoblastoma, although having a extremely rare incidence, should also be taken into consideration when we make differential diagnosis of nodular basal cell carcinoma and trichoepitheliomas. Because of the therapeutic management and prognosis are different for three types of tumors. So, proper monitoring of the lesion for abnormal growth and changes is necessary.

Conflict of Interest

There is no conflict of interest.

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Nil

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published.

Reference

1. Ackerman AB, Reddy VB, Soyer HP. Neoplasms with follicular differentiation. 2nd ed. New York: Ardor Scribendi; 2001. p. 1109.
2. Ghigliotti G., De Col E., Parodi A. et al. Trichoblastoma: is a clinical or dermoscopic diagnosis possible? J EurAcad DermatolVenereol 2016; p 1978-198.
3. Karmarkar PJ, Mahore SD, Wilkinson AR. Solitary trichoblastoma. Indian J Pathol Microbiol 2009; p. 277-278.
4. Headington J.T.: Tumours of hair follicle – A review – Am. Jour. Of Pathol. 1976 ; 85 : 479 – 514.
5. Laxmi Rao, Vidya Monappa, Mohammed Musheb: Cutaneous nodule on face: Admantinoid Trichoblastoma – A unique tumour – Our Dermatol. Online 2013; 4(2) : 218 – 220.
6. Yamamoto O, Asahi M: Cytokeratin expression in trichoblastic fibroma(small nodular type trichoblsroma), trichoepithelioma and basal cell carcinoma- BJD 1999;140;8-16.
7. Misago N, Narisawa Y:. Tricholemmal carcinoma in continuity with trichoblastoma within nexus sebaceous. Am J Dermatopatho1 20 02324 :149-155.
8. Luciana Takata Ponters, Andre Luiz Siiao, Fernando dos Ramos Seuling et. al. : Mohs Micrographic Surgery on recurrent trichoblastoma - Surg. Cosmet Dermatol 2012 ;4(1) : 93 – 6.