

## Verrucous Trichoadenoma-A Case Report of a Rarest Hair Follicle Tumour

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### Abstract

Trichoadenoma is a rare, slowly growing benign follicular tumor, which is usually well differentiated and solitary. It was first described by Nikolowski in 1958. The lesion usually present as a non-specific nodule. The commonest sites are face, buttocks.<sup>(2)</sup> Herein We report a case of a 71 year-old female who presented with history of a solitary growth in the left cheek for 3 months which was insidious in onset and progressive in nature. No history of pain or discharge from the lesion. Clinically it was suspected to be a malignant melanoma and wide local excision of the lesion was done. The histological features showed a verrucous lesion with multiple cysts in the dermis which was proven to be that of a verrucous trichoadenoma, a rare variant of trichoadenoma.

**Keywords:** Benign hair follicle tumour, trichoadenoma, skin adnexal tumour.

### Introduction

Trichoadenoma is a rare benign tumor, with multiple cystic structures closely resembling the infundibular structures of the hair follicle.<sup>(1)</sup> It presents as a non-specific nodule over the face or buttocks and varies from 0.3 to 5.0 cm in diameter. Can arise anytime during adult life and clinically mimics basal cell carcinoma.<sup>(2)</sup> Histopathologically numerous horn cysts are present throughout the dermis surrounded by eosinophilic cells. In some instances, a single layer of flattened granular cells is interpolated between the horn cysts and surrounding eosinophilic cells. Some islands consist of only eosinophilic epithelial cells without central keratinization. Ours is a case of solitary verrucous trichoadenoma of face.

### Case Report

A 71 year old female, presented with complaints of a swelling over left cheek for 3 months, which initially started as a small blackish papule and progressed to a growth of size 1.5x1.0 cms. No history of pain or discharge from the growth. No history of similar lesion anywhere else in the body. Patient is a known hypertensive on treatment.

Examination revealed a firm, non -tender papule of size 1.5x1 cm in the left cheek, black in colour with ill -defined borders. All the laboratory investigations of the patient were under normal limits. Wide local excision was done and sent for histopathological examination.

### Pathology

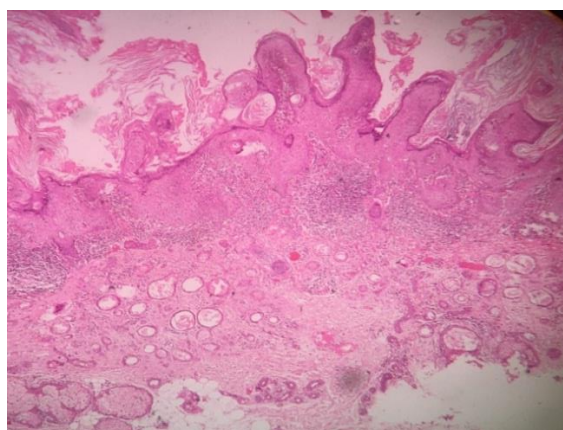
**Gross:** Received a skin covered soft tissue with elevated blackened lesion over the skin.

**Histopathology:** Epidermis showed acanthosis, papillomatosis and hyperkeratosis. Reticular dermis showed multiple, discrete, keratin filled, cystically dilated hair follicles along with few hair follicles in different stages of maturation. Dermo-epidermal

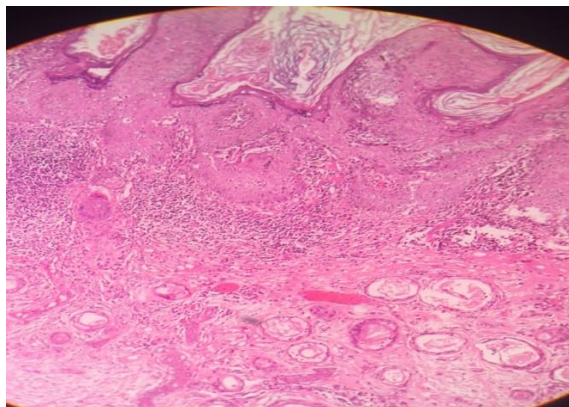
junction showed a band of inflammatory cell infiltration. All the resected margins showed the presence of tumour.



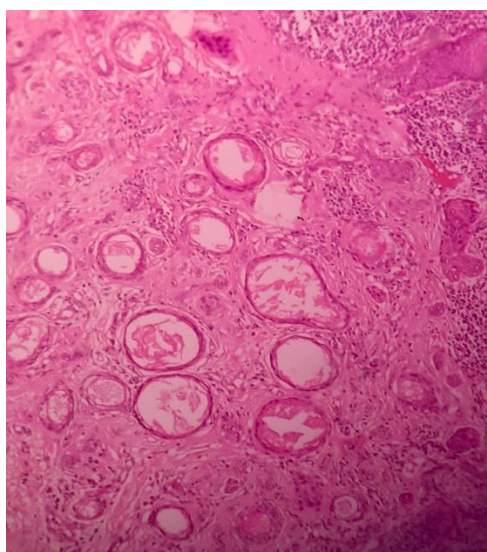
Clinical Picture: Black papule on the left cheek with ill-defined borders.



**Fig. 1: 10 X showing a papillomatous lesion enclosing multiple keratin horn cysts in the dermis**



**Fig. 2: 100 x showing lymphocytic infiltration in the reticular dermis with multiple keratin horn cysts**



**Fig. 3: 400X showing keratin filled cysts**

## Discussion

Trichoadenoma of Nikolowski is a rare, follicular tumor considered as a neoplastic process by some authors and benign malformation by some others.<sup>(3,4)</sup> Usually it is a tumor of adulthood and there is no sexual predilection. Clinically it presents as a solitary slow growing grayish nodule measuring up to 3.0 cm in diameter, seen over the face (57.5%) and buttocks (24.2%). Other uncommon sites of involvement are the neck, upper arm, thigh, shoulder. It may also present as a chronic discharging nodule or as an ulcerated growth.<sup>(2)</sup> Verrucous variants of trichoadenoma have been described in the literature.<sup>(10)</sup> Our is a rare variant which presented like a melanoma clinically but turned out to be verrucous trichoadenoma histopathologically. Rare case reports of trichoadenoma in association with intradermal melanocytic nevus,<sup>(6)</sup> sebaceous carcinoma, basal cell carcinoma have also been recorded.<sup>(2)</sup>

Histopathologically numerous round to oval infundibulocystic structures are seen in the dermis. Numerous horn cysts are surrounded by eosinophilic cells with abundant cytoplasm. In some instances, a

single layer of flattened granular cells is interpolated between the horn cysts and surrounding eosinophilic cells.

The histogenesis of trichoadenoma remains unclear. It is assumed to have an association with trichofolliculoma and trichoepithelioma. Moreover, the histological similarity of trichoadenoma with trichoepithelioma suggests its development from immature hair follicles.

Trichofolliculoma presents as a solitary, slow-growing asymptomatic lesion on the face, neck, or scalp. Patients complain of thin hairs growing from the lesion. It is usually of variable size ranging 2mm-1.8cm in diameter. It is a dome-shaped, pink-to-flesh-colored papule or nodule with defined margins. The tumour consists of a dilated primary follicle lined by infundibular, stratified squamous epithelium, which may be connected to the epidermis. The lining epithelium has prominent granular layer. The hair follicles are present at different levels of differentiation with numerous vellus hairs within hair follicle lumen

Trichoepitheliomas are regarded as poorly differentiated hamartomas of hair germ, located mainly on face, nasolabial folds, forehead, upper lip and scalp. There are three variants of trichoepitheliomas namely solitary, multiple and desmoplastic.

Trichoepitheliomas usually presents as small papules with strong predilection for central part of the face. Therefore trichoadenoma should be differentiated from trichoepithelioma and other mimickers for the treatment purpose.

Treatment of trichoadenoma is surgical excision. The incidence of recurrence is low.

## Conclusion

The Verrucous trichoadenoma is a rare variant of trichoadenoma and only very few cases have been reported in the literature so far. Its correct identification by histology gains importance, as it may clinically mimic malignant tumour like basal cell carcinoma. Though trichoadenomas are known to occur on the face and buttocks, newer cases with unusual manifestations mimicking malignancy are being reported.

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