

A Clinico-histopathological Diagnosis of Trichoadenomas on Nose: A Case Report

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Abstract

Trichoadenoma of Nikolowski is a slow-growing, well-differentiated, rare, benign tumor closely resembling the infundibular portion of the hair follicle. Reporting such cases adds to the limited literature and helps clinicians better recognize and understand the condition. Due to its clinical and histopathological resemblance to other skin tumors, accurate diagnosis can be challenging. Reporting cases aids in refining diagnostic approaches. We report a case of a 51-year-old female with slow-growing skin-colored nodules over the tip of the nose and left nasal ala, with characteristic histopathological features suggestive of trichoadenoma.

Keywords: Nose; Horn cyst; Trichoadenoma; Trichoepithelioma; Trichofolliculoma

Introduction

Trichoadenoma is a rare, benign, well-differentiated, solitary, and slowly growing tumor with differentiation toward the infundibular portion of the pilosebaceous canal. It is primarily asymptomatic, progressively enlarging, and variable in color.¹ It may vary in size from 3mm to 50mm and is most often located on the face or buttocks.² Here we present a case of a 51-year-old female with two skin-colored nodules on the tip of the nose and left nasal ala who was diagnosed with this rare tumor, trichoadenoma based on typical histopathological findings.

Case Report

A case of 51-year-old lady from Ramechhap presented to the dermatology outpatient department with two asymptomatic skin-colored nodules on the tip and left ala of the nose for 3 years. The lesions were gradually increasing in size. The lesion was spontaneous in onset with no prior trauma or any other aggravating factor. There was no history of itching, burning sensation, or pain over the lesions and surrounding area. There was no history of discharge from the lesion or change

in color or texture of the overlying skin. There was no history of similar lesions in any other body part.

On clinical examination, there were two well-defined nodular lesions, one measuring 6mm x 5mm on the tip of the nose and another nodule measuring 8mm x 6mm on the left nasal ala (Figure 1). These nodules on palpation were soft and non-tender with no localized rise of temperature. Button-hole sign was negative, and there was no lymphadenopathy. Physical examination of the patient was otherwise normal. Based on the clinical history and examination findings, our differential diagnoses were sebaceous adenoma, nodular form of basal cell carcinoma, sebaceous carcinoma, trichoadenoma, trichoepithelioma, trichofolliculoma, and trichoblastoma. The smaller nodule on the tip of the nose was first excised surgically under local anesthesia, maintaining all aseptic conditions, and the excisional biopsy specimen was sent for histopathological examination.

Date of Submission: 17th December 2024

Date of Acceptance: 20th February 2025

Date of Publication: 5th March 2025

How to cite this article

Shrestha E, Pradhan N, Thapa D, Khatri Chetri S, Karn D. A Clinico-histopathological Diagnosis of Trichoadenomas on Nose: A Case. *NJDVL* 2025; 23(1): 60-62. <https://doi.org/10.3126/njdl.v23i1.72734>



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Funding: None

Conflict of Interest: None

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Figure 1: Clinical picture showing trichoadenomas on the nose

areas of basaloid epithelia and foci of foreign-body giant cell granuloma. There was no evidence of atypia or hair follicle formation (Figure 2a, 2b). A diagnosis of trichoadenoma was made considering these typical histological features. After confirming the diagnosis, the remaining larger nodule on the left ala of the nose was also excised similarly, and trichoadenoma was also diagnosed after histopathological examination. The patient has been coming for follow-up once monthly. However, there has been no recurrence so far.

Discussion

Trichoadenoma, described by Nikolowsky in 1958 as an organoid follicular hamartoma, is today an independent and internationally recognized entity.³ Trichoadenoma is a benign neoplasm of the hair follicle, occurring as a non-specific solitary tumor on the face (57.5%) or buttocks (24.2%).⁴ Some unusual sites such as the neck, upper arm, thigh,⁵ shoulder,⁴ and shaft of penis¹ have also been reported. Rarely do these benign tumors occur in the nail bed or the external auditory canal. It is more common in males and arises anytime during adult life. Exceptionally, it may be congenital or appear in infancy.⁶ It may also present as a chronic discharging nodule or as an ulcerated growth.⁷ The tumour is less mature than a

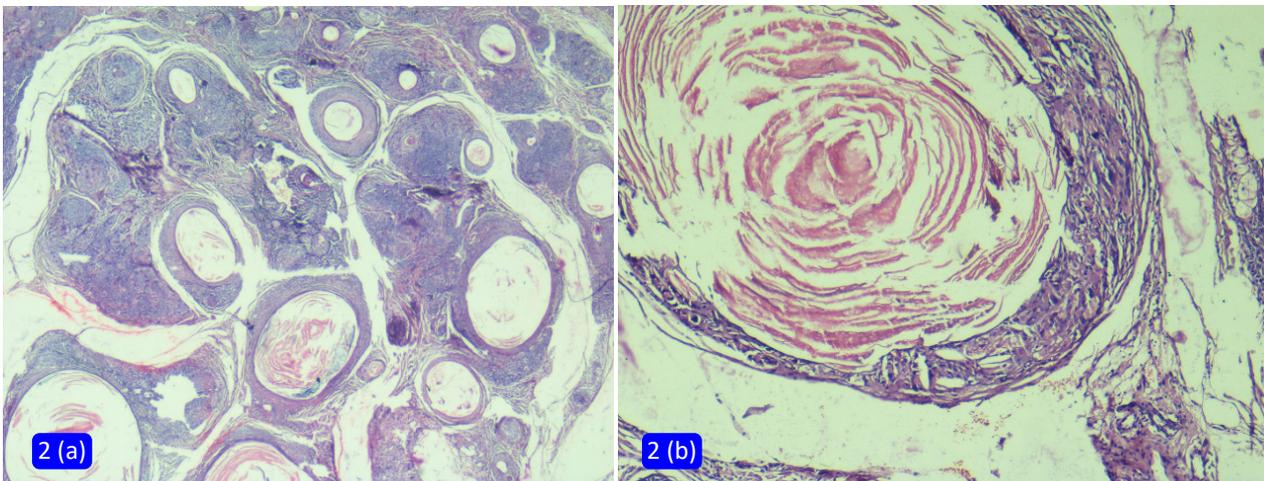


Figure 2 (a, b): Histological pictures of trichoadenoma showing multiple keratin filled cysts in the dermis. (Hematoxylin and eosin stain, x100 and x400)

On light microscopic examination, the epidermis lined by keratinized stratified squamous epithelium with basal melanin pigmentation was noted. The underlying dermis showed numerous horn cysts lined by eosinophilic cells with keratohyalin granules containing keratin. The central cystic cavity showed epidermoid keratinization and resembled the cross-section of an infundibular portion of the pilosebaceous canal. Solid epithelial islands of eosinophilic epithelial cells without central keratinization were also seen. There were also

trichofolliculoma and is more differentiated than a trichoepithelioma.⁴ There have been rare case reports of trichoadenoma arising as combined malformation with an intradermal melanocytic nevus. Few cases with unusual simultaneous occurrence of trichoadenoma along with sebaceous carcinoma, basal cell carcinoma, syringocystadenoma papilliferum, and trichoblastoma within a nevus sebaceous have also been reported.⁴ Histopathological study of trichoadenoma characteristically shows numerous horn cysts

throughout the dermis, surrounded by eosinophilic epithelial cells. The eosinophilic cells greatly resemble the ones often seen in trichoepithelioma located between the basophilic cells and the central horn cysts. The central cystic cavity shows epidermoid keratinization and resembles the cross-section of an infundibular portion of the pilosebaceous canal without any evidence of hair follicle formation. Other findings can be solid epithelial islands of eosinophilic epithelial cells without central keratinization and foci of foreign-body granuloma at the sites of ruptured horn cysts.⁶ Although the precise histogenesis of this tumor remains unclear, it is thought to differentiate between the lines of the follicular infundibulum and the follicular bulge region which is supported by its

keratin profile expression.¹

No treatment is mandatory. The lesions can be excised for cosmetic reasons or if they become irritated.⁷

Conclusion

Trichoadenoma is a perplexing and relatively rare tumor. Several cases with a single nodule on the tip of the nose or other areas of the face, diagnosed as trichoadenoma, have been reported in the past. However, this exceptional case of 51 year-old-lady with the diagnosis of trichoadenoma presented with two asymptomatic, skin-colored nodules instead of a single lesion. Thus, this case is reported for its rarity and peculiar clinical presentation.

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