

Fibroepithelial Polyp of the Nasal Vestibule: A Rare Anatomical Location of a Common Lesion

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Abstract

Case Report

Fibroepithelial polyps are common benign mesodermal lesions frequently encountered in the skin but are exceedingly rare in the nasal cavity, particularly in the nasal vestibule. Owing to their unusual location, such lesions may pose diagnostic challenges and clinically mimic other benign or malignant nasal masses. We report the case of an 18-year-old male who presented with a small, non-tender polypoidal swelling at the mucocutaneous junction of the left nasal vestibule. The lesion was completely excised under local anaesthesia and submitted for histopathological evaluation. Microscopic examination revealed a polypoidal lesion lined by keratinized stratified squamous epithelium showing focal acanthosis and hypergranulosis, with underlying fibrocollagenous stroma containing blood vessels, and no evidence of epithelial atypia or malignancy. A diagnosis of fibroepithelial polyp was established. This case highlights the importance of considering fibroepithelial polyp in the differential diagnosis of nasal vestibular lesions and emphasizes the role of complete excision with histopathological examination to ensure accurate diagnosis and exclusion of malignant transformation.

Keywords: Fibroepithelial Polyp, Nasal Vestibule, Histopathology, Malignant Transformation.

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INTRODUCTION

Fibroepithelial polyps are benign polypoid lesions of mesodermal origin, composed of varying amounts of fibrocollagenous stroma covered by stratified squamous epithelium. They are also known as soft fibromas or acrochordons and typically exhibit a nonspecific benign growth pattern [1]. These lesions are among the most commonly encountered benign cutaneous growths. Their occurrence within the nasal cavity, particularly in the nasal vestibule, is extremely rare and therefore of special interest for case reporting. Only a few cases of fibroepithelial polyps involving the sinonasal tract have been reported in the literature, with previously documented sites including the inferior turbinate and the anterior nasal septum [1,2]. The diagnostic importance of fibroepithelial polyps lies in their differentiation from other polypoidal lesions such as papilloma, adnexal tumours, and early neoplastic growths. Although fibroepithelial polyps are benign, all excised lesions should undergo histopathological examination, as rare cases of squamous cell carcinoma arising in fibroepithelial polyps have been reported [3].

CASE REPORT

An 18-year-old male patient presented with complaints of rhinorrhoea for one week. The patient had noticed a small swelling in the left nasal vestibule approximately one month prior to presentation. There was no associated pain, epistaxis, or nasal obstruction. The patient had a past surgical history of tympanoplasty and total adenoidectomy. On clinical examination, the nasal mucosa was congested, and a solitary, non-tender, polypoidal swelling measuring approximately 5 × 5 mm was identified at the mucocutaneous junction of the left nasal vestibule.

Complete excision of the lesion was performed under local anaesthesia, and the specimen was submitted for histopathological examination.

Gross examination: The specimen consisted of a single, firm, greyish polypoidal tissue fragment measuring 0.4 cm in diameter. Whole tissue has been studied.

Histopathological examination:

Microscopic examination revealed a polypoidal lesion lined by keratinized stratified squamous

epithelium with focal acanthosis and hypergranulosis [Figure 1 and 2]. The subepithelial tissue was composed of fibrocollagenous stroma containing numerous blood vessels. No epithelial atypia, dysplasia, or malignant features were identified.

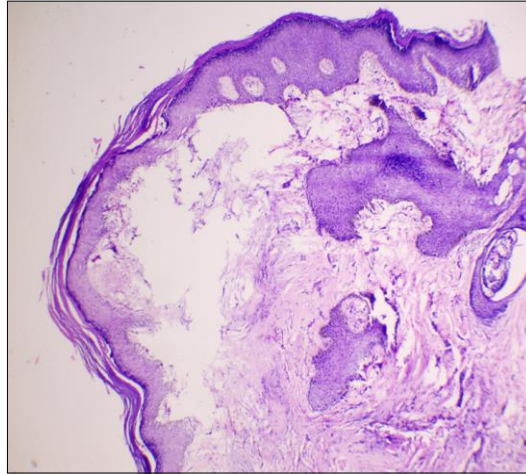
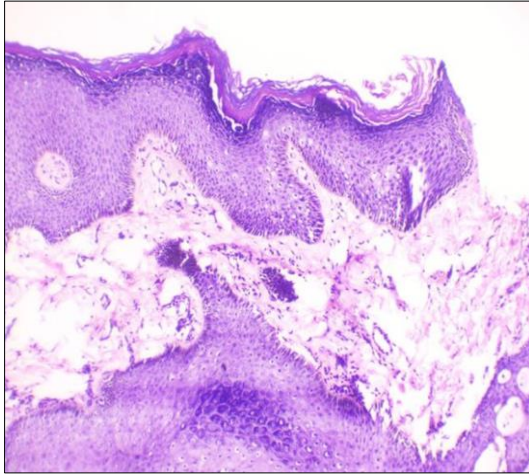


Figure 2: [H & E 100x] Lining of polyp showing acanthosis, hypergranulosis, hyperkeratosis.

Figure 1: [H & E 40x] Polypoid lesion lined by keratinized epithelium showing fibrovascular stroma with adnexal structures

DISCUSSION

Fibroepithelial polyps were first described by Norris and Taylor in 1966 [4]. They are benign lesions that may represent a reactive hyperplastic process of the subepithelial mesenchymal tissue and may occasionally be misdiagnosed as malignant lesions [5].

The exact etiology of fibroepithelial polyps remains unclear. Several theories have been proposed, including secondary development due to focal loss of elastic tissue, hamartomatous proliferation of the lamina propria, and reactive changes following chronic irritation or mucosal trauma [2] [6]. Chronic smoke inhalation has been suggested as a potential etiological factor for fibroepithelial polyps arising in the airway [7]. Hormonal influences have also been implicated, particularly in fibroepithelial polyps of the vulva, where oestrogen is thought to play a role [8].

Clinical presentation depends on the size and anatomical location of the lesion. Symptoms may include nasal obstruction, rhinorrhoea, difficulty breathing, snoring, disturbed sleep, foreign body sensation, or aural fullness [9]. In the present case, the patient's symptoms were mild and related to the lesion's vestibular location.

Several reports have suggested an association between fibroepithelial polyps and systemic conditions such as diabetes mellitus, acromegaly, and colonic polyps [10]. Unlike cutaneous fibroepithelial polyps, which are often clinically diagnosed with reasonable accuracy, lesions arising in the head and neck region are difficult to differentiate from malignant lesions based on

A diagnosis of fibroepithelial polyp arising from the nasal vestibule was rendered. The patient is asymptomatic and is doing well at eight months of follow-up.

clinical examination alone. Therefore, histopathological evaluation following excisional biopsy is essential [5].

The differential diagnosis of polypoid lesions arising from the nasal vestibule includes exophytic squamous papilloma, inflammatory nasal polyp, and respiratory epithelial adenomatoid hamartoma [11].

CONCLUSION

Fibroepithelial polyp is a benign mesenchymal lesion that is commonly encountered on the skin but is rarely seen in the nasal cavity, particularly in the nasal vestibule. When occurring at such an unusual site, it may clinically resemble other benign or malignant nasal masses, leading to diagnostic difficulty. This case highlights the importance of considering fibroepithelial polyp in the differential diagnosis of nasal vestibular lesions. Histopathological examination remains the gold standard for diagnosis, as it helps confirm the benign nature of the lesion and excludes epithelial dysplasia or malignant transformation. Complete surgical excision followed by thorough pathological evaluation ensures accurate diagnosis, prevents recurrence, and results in an excellent prognosis.

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