Eruptive Vellus Hair Cyst in the Nasal Vestibule: A Rare Occurrence

Ram S1*, Raman R1, Mun KS2

1Department of Otorhinolaryngology, Faculty of Medicine, University of Malaya, 50603, Kuala Lumpur, Malaysia
2Department of Pathology, Faculty of Medicine, University of Malaya, 50603, Kuala Lumpur, Malaysia.

Abstract
To our knowledge, this is the first case of eruptive vellus hair cyst occurring in the nose. The lesion occurred in a 62 years old female who presented with a cyst-like lesion in the left nostril for 4 months. An excision biopsy was taken and the diagnosis was confirmed with histopathological examination. We seek to characterize the occurrence of eruptive vellus hair cyst and its distinct clinical entity in the nasal vestibule and hope for better understanding of the pathogenesis of this rare lesion.

Keywords: Nasal vestibule mass; Eruptive Vellus Hair Cyst

Case Report
This is a 62 years old female, premorbid of Type 2 Diabetes Mellitus, presented with painless, brownish-black swelling over the left nostril (Figure 1). There was no contact bleeding, discharge emitted or preceding trauma.

Suspecting a benign cyst-like pathology, the lesion was excised. An elliptical excision of the lesion was performed under general anaesthesia with primary closure. No intra operative or post-operative complications were encountered.

The histopathology laboratory received a fragment of skin measuring 0.4 cm in height and 0.2 cm across. Cut section shows a solid-looking nodular lesion under the epidermis. There is a punctum in the center of the surface of the skin. The specimen was bisected and submitted entirely into 1 paraffin block.

*Corresponding author: Ram Shanmugam, Department of Otorhinolaryngology, Faculty of Medicine, University of Malaya, 50603, Kuala Lumpur, Malaysia, Tel: +60379492062; E-mail: drramshanmugam@gmail.com

likely not random and seems to grossly overlap with that of pilosebaceous and apocrine units [1, 2]. To the best of our knowledge, this is the first case of eruptive vellus hair cyst occurring in the nose.

The nasal vestibule is the most anterior part of the nasal cavity and is lined with keratinizing squamous epithelium and has vibrissae, sebaceous glands and sweat glands. The most common mass in this region is nasal vestibule cyst followed by papilloma [3, 4]. The diagnosis of eruptive vellus hair cyst is not tedious. However, differential diagnosis varies from epidermoid cyst, dermoid cyst, millium cyst or even trichilemmal cyst. Histological studies are often required for definitive diagnosis of these disorders.

Eruptive vellus hair cyst has a typical appearance of vellus hair in the cyst and a cystic wall with follicular attachments. On the contrary, dermoid cysts has pilosebaceous material in the cyst wall with hair, secreting epithelium and/or muscles as a cyst wall content. Trichilemmal cysts are also known as pillar cysts. They contain palisading cells with glycogen and eosinophilic contents, resting on a supported hyaline basement membrane. Occasionally, inflammatory cells, dystrophic calcifications and cholesterol crystals can be encountered. Millium can occur in any age group and present as a multiple cysts filled with keratin.

It is still not clearly understood as to how eruptive vellus hair cyst occurs in the nasal vestibule [4]. The hypothesis may occur due to pathology occurs due to possible digging of nose, which embeds the hair follicles. With this additional case of eruptive vellus hair cyst being reported, we share the enthusiasm of other fellow colleagues to continue our work in this pathology.

Conclusion

In conclusion, eruptive vellus hair cyst in the nasal vestibule region is predominantly a cosmetic concern to patients. Diagnosis is often obtained by the means of biopsy. They are mainly treated by surgically resection and reoccurrence is rare after complete excision. However, the exact pathogenesis seems to have deluded the field of dermatopathology. We seek to characterize this presentation and hope it stimulates further work and better understanding of the pathogenesis of this rare lesion.

References


Examination under the microscope showed a cluster of small cysts in the dermis that are lined by keratinizing stratified squamous epithelium. Deeper and multiple sections showed that the small cysts were most likely parts of a single larger cyst in which the wall formed small invaginations into the surrounding connective tissue. The squamous epithelial lining of the cyst was seen in continuum with numerous hair follicles (Figure 2). The contents of the cysts were made up of clumps of keratin and sections of vellus hair shafts (Figure 3). No evidence of malignancy was seen.

A diagnosis of vellus hair cyst was made. There has been no recurrence to this time.

Discussion

The occurrence of eruptive vellus hair cyst is rare. Literature search revealed reported lesions only in the chest and limb extremities. However, it can occur in any cutaneous area but