

Cutaneous Horn Overlying Inverted Follicular Keratosis: A Rare Case Report

Dear Editor,

Cutaneous horn, also called cornu-cutaneum is a conical projection above the surface of the skin that resembles the horn of an animal. The horn itself is dead keratin but the underlying condition may be benign, premalignant or malignant. Here, I present a case of cutaneous horn with inverted follicular keratosis at the base. A 25-year-old female presented with a conical growth on inner side of nasal septum in left nostril [Figure 1]. The lesion increased gradually in size over a period of year. Physical examination revealed a horn like, solitary firm, non-tender projection on the inferior most aspect of the inner side of left nostril. The growth was about 1.25 cm in length [Figure 2]. The clinical diagnosis of cutaneous horn was made and excisional biopsy was done. The histopathology showed a well-circumscribed neoplasm with papillomatosis. The neoplasm is continuous with surface epidermis which shows collarette hyperplasia at the periphery and numerous dilated papillary dermal capillaries [Figure 3]. The surface of neoplasm shows marked orthohyperkeratosis with columns of parakeratosis. The neoplastic cells are keratinocytes with abundant pale cytoplasm and monomorphous nuclei. However, the deeper component shows mild nuclear atypia with nuclear crowding, dyskeratotic cells and occasional mitotic figures. Throughout the neoplasm there are numerous

squamous eddies [Figure 4]. Squamous eddies show plump keratinocytes arranged in a whorled pattern [Figure 5]. Histopathologic evaluation of hematoxylin and eosin stained sections confirmed the diagnosis of inverted follicular keratosis with an overlying cutaneous horn.

Cutaneous horn is a clinical diagnosis. The most important issue is the underlying condition which may be Benign (seborrheic keratosis, warts, Inverted follicular keratosis, trichilemmoma, molluscum contagiosum, etc); Premalignant (solar keratosis, arsenical keratosis, Bowen disease) or malignant (squamous cell carcinoma, Basal Cell Carcinoma etc). The chronic irritation at the base of the lesion leads to formation of cutaneous horn. Thus, the lesion at the base produces reactive hyperkeratosis leading to accumulation of cohesive keratinous material which leads to the formation of cutaneous horn.^[1]

Inverted follicular keratosis generally presents as white – pink, solitary papule less than 1 cm. Etiopathogenesis of inverted follicular keratosis is not



Figure 1: Cutaneous horn in the left nostril



Figure 2: Closer view of cutaneous horn emerging from base of inferior portion on inner side of nasal septum in left nostril

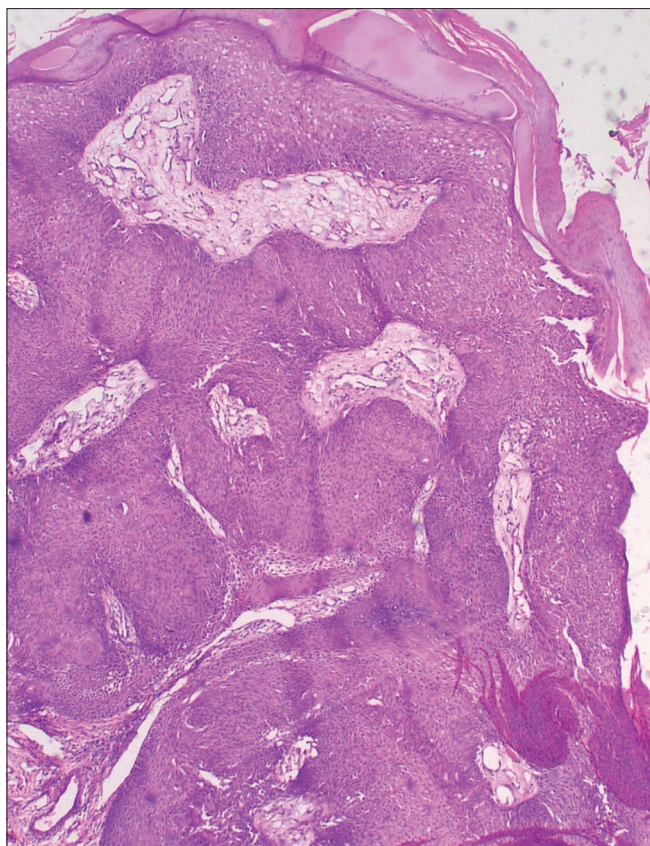


Figure 3: Papillomatous lesion with marked epidermal hyperplasia and numerous dilated papillary dermal capillaries. (H and E, × 10X)

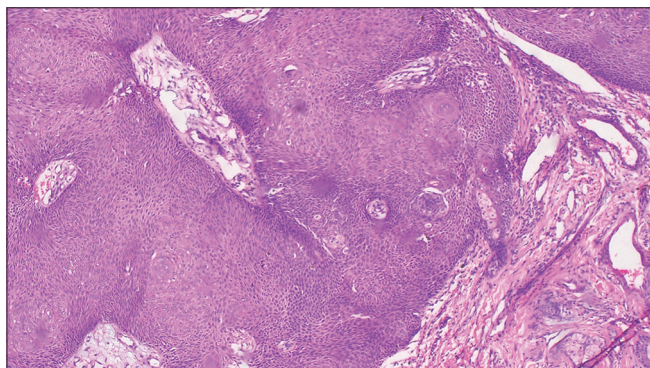


Figure 4: Hyperplastic epidermis shows numerous squamous eddies. (H and E, × 20X)

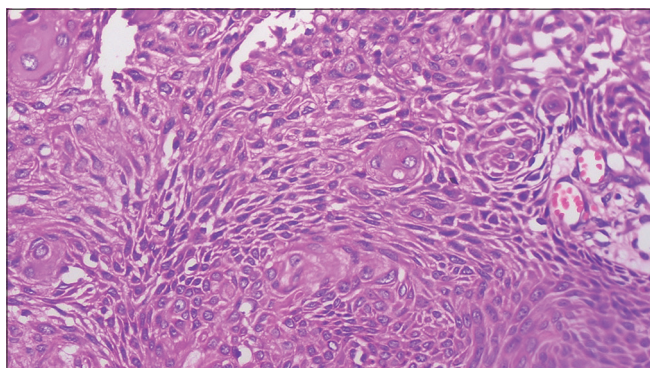


Figure 5: Squamous eddies show plump keratinocytes arranged in a whorled pattern. (H and E, × 40X)

exactly known. Duperrat & Mascaro in 1963 proposed that inverted follicular keratosis was derived from the infundibulum of hair follicle.^[2] Although it was reported that it might be related to viral warts or seborrheic keratosis, some authors believe that inverted follicular keratosis is a different entity.^[3,4] In most recent studies, human papilloma virus (HPV) was detected in cases with inverted follicular keratosis.^[5] Histopathologically, inverted follicular keratosis exhibits an endophytic, somewhat bulbous proliferation of eosinophilic keratinocytes with basaloid or squamous differentiation. Squamous eddies are commonly seen. The diagnosis of inverted follicular keratosis is uncommon and is generally established histopathologically as clinical differentiation from other lesions is difficult. Lesions are successfully treated by complete excision. Cutaneous horn is more of a cosmetic concern for a patient but as a Dermatologist we should always think of the underlying cause, as one-third of them harbor premalignant or malignant lesions.

I report this case because of its rarity. The incidence of cutaneous horn developing from underlying inverted follicular keratosis is rare and to my knowledge, this is the first reported case.

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 and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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