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Introduction

The cutaneous horn (cornu cutaneum) is a circumscribed, conical and keratotic lesion, which can hide benign or malignant lesions [1–3]. The clinical diagnosis is established based on its appearance, the lesion being classified as solitary or multiple, straight, curved or twisted, white or yellow [4,5], most often located at the level of the skin on the patient’s face [4,6,7]. While the cause leading to the formation of cutaneous horns [8] is unknown, UV radiations are believed to be the trigger of this condition [9]. Usually, the cutaneous horn occurs in people over the age of 50, in both genders [10–14].

The cutaneous horn can occur in any part of the body: the malar or frontal areas, dorsum of nose, neck, lips [3], upper eyelids [2,9,12], lower eyelid [15], external ear [3,16], scalp [3,4], upper limbs [3,11,17,18], chest [9], lower limbs [11] and penis [19].

The treatment of choice is the surgical excision of the lesion to the healthy tissue [17,20,21], followed by a histopathological examination in order to confirm the diagnosis [6, 13, 18, 22, 23], the real point of interest being not the cutaneous horn, but the underlying lesion [1].

The cutaneous horn can develop on benign (seborrheic keratosis, viral warts, histiocytoma, inverted follicular keratosis, verrucous epidermal nevus, molluscum contagiosum, etc), premalignant (solar keratosis, arsenical keratosis, Bowen’s disease) or malignant lesions (squamouscellular carcinoma, rarely, basal cell carcinoma, renal metastatic carcinoma, granular cell tumor, sebaceous carcinoma or Kaposi’s sarcoma) [2,3,14].

We are presenting two clinical cases of cutaneous horns of the eyelid diagnosed in a 19 and a 78 year old patient, respectively, which developed on an association of preexisting lesions: chalazion or inclusion cyst, along with moderate dysplasia of the epidermis in both cases.

Abstract

Cutaneous horns are relatively rare benign tumors which occur most frequently on sun exposed skin and develop on various types of underlying skin lesions: benign, premalignant and malignant. The treatment of choice consists in the surgical excision of the lesion to healthy tissue. The histopathological examination is mandatory in order to establish the nature of the lesion, on which the cutaneous horn develops. We are presenting two clinical cases of cutaneous horns of the eyelid diagnosed in a 19 and a 78 year old patient, respectively, which developed on an association of preexisting lesions: chalazion or inclusion cyst, along with moderate dysplasia of the epidermis in both cases.

Case Report

Cutaneous Horn of the Eyelid: Anatomoclinical Implications

Case 1

A 19-year-old male patient, resident in a the rural area, was admitted to the Ophthalmology Clinic for a solitary firm horn on the lower eyelid, which had gradually progressed over the course of two months. One year before, the patient noticed a focal swelling of the inferior eyelid treated empirically, on which the cone shape growth developed progressively. The patient’s medical and ocular history was not significant.

The clinical examination revealed a solitary cone shape hyperkeratotic growth measuring 1.0/0.6 cm in size, with an inflamed nodular base, located in the middle 1/3rd of the inferior...
right eyelid (Figure 1). There was no regional lymphadenopathy. The clinical diagnosis was that of solitary inferior right eyelid cutaneous horn. The lesion was excised completely with local anesthesia, and the defect was closed by sliding the skin of the inferior eyelid and sutured with Vicryl (gauge 6.0).

The resection specimen was evaluated histologically, revealing an association of three vertically overlapped lesions: compact acellular keratin, with a "dome" shape (Figure 2), overlying an hyperplastic epithelium showing an infection with human papilloma virus (Figure 3A) and a moderate dysplasia of the adjacent epidermis (Figure 4). Underneath the hyperkeratosis and the hyperplastic epidermis, a chalazion could be identified into the deep dermal structure (Figure 3B). The postoperative evolution was favorable: no scar formation and no clinical relapse for six months.

Case 2

A 78-year-old male patient, resident in a rural area, was hospitalized for a cone shape growth on the upper right eyelid which had gradually progressed for six months. The patient’s medical ocular and general history was not significant. An ophthalmological clinical examinations demonstrated a cone shape hyperkeratotic growth developed on a well-defined inflammation edge, measuring 0.6/0.3 cm in size, in the internal 1/3rd of the upper right eyelid (Figure 5). Moreover, multiple pigmented lesions were noticed on the patient’s face. The biomicroscopic examination diagnosed an incipient cataract in both eyes. There was no regional lymphadenopathy. The clinical diagnosis was that of a cutaneous horn located on a cystic sebaceous lesion on the right upper eyelid. The tumor growth was excised completely through ellipsoidal incision and primary closure of the defect with Vicryl suture (gauge 6.0) was done.

The resection specimen was evaluated histopathologically, revealing an association of three lesions: cutaneous horn (which “detached” from the basis of the underlying lesion, just before the surgical intervention), moderate dysplasia of the underlying epidermis and epidermal inclusion cyst located in the deep dermal structure (Figure 6A-D). The postoperative evolution was favorable: no scar formation and no clinical relapse for a year.
Discussion

The cutaneous horn is a clinical diagnosis which refers to a tumor located on the surface of the skin [14,24] with a hyperkeratotic cone shape [3], white-yellowish in colour, ranging from a few millimeters to a few centimeters in size, which can hide other benign or malignant underlying lesions [1].

This tumor is common in Caucasians, less frequent in Asian and Arabic populations, and rare in the African population [25].

The age of onset of the cutaneous horn is between 60–70 years old, and the underlying malignant lesions identified are common in people over the age of 70 [14].

The first case of cutaneous horn was reported in London, in 1588, in an elderly Welsh woman [8,9].

The cutaneous horn is made of compact keratin. The basis can be flat, nodular or „crater-like“. Clinical aspects can not give any clue to differentiate a benign or a malignant lesion, but the indurated and bleeding base of a large tumor pleads in favour of malignancy [14]. The cutaneous horn develops most often on sun exposed skin, on a preexisting lesion, such as benign warts or seborrhoeic keratosis. However, the real pathobiology of the developing of a cutaneous horn on the surface of these lesions remains unknown [14].

From a histological perspective, the cutaneous horn is made of compact hyperkeratosis, which can be either orthokeratotic....
The cutaneous horn is a lesion which, from a clinical perspective, cannot give the physician any indication as to its nature, i.e. benign or malignant; it can mask several benign, premalignant, as well as malignant lesions, and can only be diagnosed through a histopathological examination, which is essential in later therapeutic conduct.

**Conclusions**

The cutaneous horn is a lesion which, from a clinical perspective, cannot give the physician any indication as to its nature, i.e. benign or malignant; it can mask several benign, premalignant, as well as malignant lesions, and can only be diagnosed through a histopathological examination, which is essential in later therapeutic conduct.

**References**


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