

## Cutaneous horn on the upper lip associated with squamous cell carcinoma

Üst dudakta skuamöz hücreli karsinom ile birlikte görülen kütanöz boynuz

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Cutaneous horn is a protrusion from the skin consisting of cornified material. It usually appears on exposed skin areas especially on the head and neck. A 70-year-old woman applied to our clinic with a hard, conical, black-grey 2 cm lesion on the upper lip. On physical examination, there was no palpable lymph node in the neck other than the lesion. Diagnosed to be cutaneous horn, the lesion was completely removed together with 4-5 mm surrounding tissues under local anaesthesia. The histopathological examination reported this lesion to be cutaneous horn with well differentiated squamous cell carcinoma at its base. No recurrences or metastasis were detected within a follow-up period of 5.5 years. It should be kept in mind that cutaneous horns may be associated with premalignant and malignant lesions at the base, masking numerous conditions.

**Key Words:** Cutaneous; horn; squamous cell carcinoma.

Kütanöz boynuz kornifiye materyalden oluşan derinin bir çıkıntısıdır. Özellikle baş boyun bölgesi olmak üzere genelde derinin açıkta kalan bölgelerinde görülür. Yetmiş yaşında kadın hasta üst dudakta 2 cm'lik sert, konik ve koyu gri renkte lezyon ile kliniğimize başvurdu. Fizik muayenesinde lezyon haricinde boyunda lenf nodu palpe edilmedi. Kütanöz boynuz tanısı ile lokal anestezi altında 4-5 mm çevresiyle birlikte lezyon çıkartıldı. Histopatolojik inceleme sonucunda bu lezyonun, tabanında iyi diferansiye skuamöz hücreli karsinom olan kütanöz boynuz olduğu bildirildi. Hastanın 5.5 yıllık takibi süresince yineleme veya yayılım tespit edilmedi. Kütanöz boynuzların pek çok durumu maskeleyerek zeminde premalign ve malign lezyonlarla birlikte görülebileceği akılda tutulmalıdır.

**Anahtar Sözcükler:** Kütanöz; boynuz; skuamöz hücreli karsinom.

The term cutaneous horn (CH; cornu cutaneum) has been used to describe a conical, dense, hyperkeratotic protrusion on the skin surface that resembles the horn of an animal. This is not a pathological diagnosis and it may derive from benign, premalignant, or malignant epidermis. There are considerable variations in size and shape, but most are conical.<sup>[1,2]</sup> Cutaneous horns are not well-known by otorhino-

laryngologists although most of the lesions are seen over the sun-exposed skin surface, especially on the head and neck. We report a case of squamous cell carcinoma presenting as a CH on the upper lip.<sup>[3]</sup>

### CASE REPORT

A 70-year-old woman presented to our ear nose and throat department in February 2002 with a



Fig. 1. Cutaneous horn on the skin of the upper lip (white arrow).

hard, conical, black-grey lesion on the upper lip 2 cm in size. The lesion had been slowly growing during the last three years, reaching a final size of 2x0.8 cm (Fig. 1). She was asymptomatic at that time. She denied any history of previous trauma, spontaneous bleeding, or ulceration in the lesion. On the physical examination, the above-mentioned lesion was observed without any palpable lymph node in the neck. Our initial clinical diagnosis was

that of a CH of undetermined cause. The horn was completely removed together with a 4-5 mm margin under local anaesthesia. The defect was closed primarily and healed uneventfully. The histopathological examination reported a CH with a well-differentiated squamous cell carcinoma (grade I) at its base (Fig. 2a-d). Surgical margins of the specimen were tumor free. The patient was followed up for 5.5 years without recurrence until she died due to pneumonia in September 2007.

## DISCUSSION

The term CH has been used to describe a protrusion from the skin consisting of cornified material organized in the shape of a horn with an undescribed mechanism. It may be straight, curved, conical, cylindrical, or spiral; single or multiple; arising from the superficial layers of the skin or implanted deeply in the cutis, and may vary from a few millimetres to several centimetres in length.

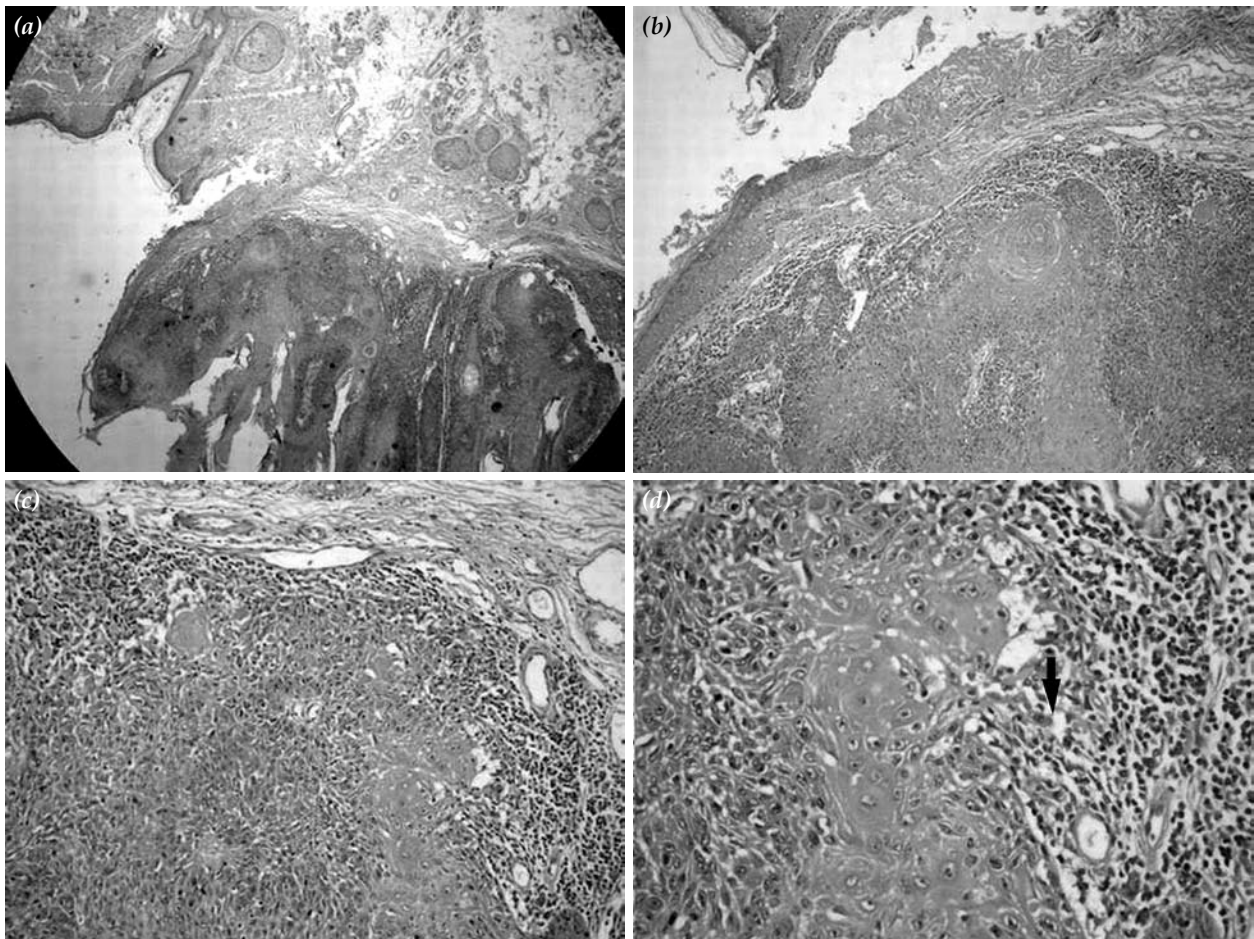


Fig. 2. Histopathological appearance of cutaneous horn specimen. (a) Papillomatosis, hyperkeratosis and parakeratosis are seen (H-E x 4). (b) Mononuclear cell infiltration under hyperplastic surface epithelium (H-E x 10). (c) Invasion of atypical squamous cells into the stroma (H-E x 20). (d) Atypical squamous cell (black arrow), (H-E x 40).

Though resembling an animal horn, it lacks a bony core.<sup>[4]</sup>

Cutaneous horn is frequently seen over the sun-exposed skin surface but is rarely present in the sun-protected sites. The lesion is found on the face, scalp, nose, eyelids, ear, lips, neck, chest, shoulders, forearm, back of hands, penis and leg.<sup>[1]</sup>

The peak occurrence of CH is in persons aged 60 years to mid 70s. No sex predilection was reported in the literature although it was more common in white populations.<sup>[5]</sup>

The important issue is not the horn itself, which is just dead keratin, but rather the nature of the underlying disease. The primary lesions associated with CHs may be histopathologically benign (seborrheic keratosis, verrucous epidermal nevus, angiokeratoma, benign lichenoid keratosis, trichilemmoma, trichilemmal horn, epidermolytic acanthoma, dermatofibroma, benign fibroma, epidermal inclusion cyst, pyogenic granuloma, subepidermal calcified nodule), premalignant (actinic keratosis, arsenical keratosis, solar keratosis, Bowen's disease), or malignant (squamous cell carcinoma, basal cell carcinoma, Kaposi's sarcoma, penile verrucous carcinoma, sebaceous carcinoma).<sup>[2,3]</sup>

The rate of premalignant or malignant lesions at the base of the horn in different studies was reported between 23% and 58%.<sup>[2,6,7]</sup> Large CHs, particularly giant horns, are considered to be commonly derived from a malignant base.<sup>[3]</sup> Older age ( $\geq 70$  years), male sex, body areas (nose, pinnae, scalp, back of the hands, face and penis), and lesions with a wide base and low height-to-base ratio are more often associated with a premalignant or malignant histopathology.<sup>[2,8]</sup> In addition, a history of trauma leading to an inflammation of the horn's base is more likely to show aggressive base pathology.<sup>[3]</sup>

Although CH is a benign lesion growing slowly and gradually, it may occur with premalignant or malignant lesions. If carcinoma develops at the base of the horn, it is usually the squamous cell type.<sup>[9,10]</sup> In case this happens on the lips, it should be treated as lip cancer considering the tumor extension, grade, presence of metastasis, age and general condition of the patient. In patients with T1 tumors, N0 neck and histopathologically low grade

tumors, excision of the tumor only with adequate surgical margins is the preferred treatment option, since the rate of occult metastases is lower than 10% in these cases. In patients with advanced tumor stages (T2, T3, T4) or with N+ neck, a neck dissection is recommended due to the increased risk of metastases.<sup>[11,12]</sup> While excising the CHs and the benign lesions of lips, the possibility of concurrent carcinoma occurrence should be considered in relation with the variable surgical treatment options. In addition, follow-up examinations to screen for a recurrence or a new primary tumor are essential for these patients.

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