

CASE REPORT

Double Cutaneous Horn of Nasal Dorsum. A rare case report

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ABSTRACT

The cutaneous horn is a fairly common injury in dermatological pathology that can be observed solitary, with benign characteristics, or associated with other benign or malignant processes. Its clinical and dermoscopic characteristics are discussed and a simple case is reported; its location, form of presentation, time of evolution and patient's age give such case a special peculiarity.

INTRODUCTION

The term cornu cutaneum (CC), which originates from the latin cornu (horn, outgrowth), is designated as such due to its resemblance to the horn of certain animals. The absence of axial position and well-formed bone is what draws the distinction. Consequently, such denomination belongs to a clinical or semiological concept. It is generally presented as an exophytic, keratotic, conical, yellowish-white, straight or curved neoformation. The lesion may be associated to benign or malignant lesions, and typically occurs on exposed areas.¹

The clinical picture was already described many years ago. 1300 A.D. was the year in which the first case was registered in the literature: a male patient presented with seven lesions on the scalp.² The lesion is also referred to as the eponymous cornu cutaneum of Rokitansky, after the German pathologist Barón Carl von Rokitansky. However, historically, it was English surgeon Everard Home who first described CC in 1791.³

Cutaneous horns are conical projections in the skin composed of compacted keratin which may manifest as hyperkeratosis. They frequently appear on Cau-

casian patients, with less occurrence on Arabs, Asians and African descendants. This racial tendency may be justified by the relative protection of pigmented skin against ultraviolet radiation.⁴ CC is more common among patients older than fifty. According to many authors, there is no known sexual predilection. Although, some refer there is female predominance, that which is increased with age.

As previously mentioned, CC typically occurs on sun-exposed areas, especially the face and scalp. Nonetheless, reports have been described on hands, soles, penis, eyelids, nasal vestibule, lips, the chest, neck, shoulders and even on areas not exposed to sunlight.^{4,5,6,7} Generally, they arise from benign warts or seborrheic keratoses.³ Even though more than half of the pathologies located at the base of the lesions are benign, between 23% and 37% are derived from premalignant actinic keratosis. Up to 20% of lesions located at the base of CCs have been identified as malignant.⁸

One of the most important studies was the one conducted by Yu et al. in 643 cutaneous horns. After a

19-year follow-up, the authors concluded that 38,9% arised from a malignant or premalignant lesion, while 61,1% derived from benign lesions.⁹ Moreover, all cases in the study revealed squamous cell carcinoma as the malignant lesion.

Lesions located at the base of CCs are unquestionably varied. They include actinic keratosis, squamous cell carcinoma, keratoacanthoma, Bowen's disease, seborrheic keratosis, basal cell carcinoma, hemangioma, pseudoepitheliomatous keratotic and micaceous balanitis, Kaposi's sarcoma, sebaceous adenoma, Paget's disease of the breast, etc.¹⁰

In order to identify these lesions as CCs, it is essential for their height to surpass at least one-half of its greatest diameter. In other words, its length must be greater than the diameter of the base, measuring up to 25 cm.^{11,12}

In regard to the evolution stage, Pérez et al.'s 10-year retrospective study first revealed that lesions of an evolution of 12 months or less suggested a predominance of benign precursor lesions in 51% of the cases; as opposed to lesions of a longer evolution (from 37 to 48 months), where malignant precursor lesions dominated in 50% of the cases.¹³

On the other hand, regarding the lesional base size and malignancy correlation, Mencia et al. observed that small CCs, measuring less than 10 mm, were associated with benign lesions; and bigger CCs, measuring more than 20 mm, were related to malignant lesions.¹⁴ However, Pérez y col. do not acknowledge these results and state that small CCs are not necessarily exempt from any malignancy.¹³ It is imperative to specify that Mencia's study was conducted on eyelid lesions.

Conclusively, most studies concur that CCs are more common in elderly patients, along with an increased risk of malignancy. Mencia¹⁴ declares that cutaneous horns rarely occur in young patients. Throughout his line of work, only six cases have been reported on patients younger than forty. Moreover, only one of them presented with basal cell carcinoma.¹⁴

Nowadays, dermoscopy plays an important role in CC's diagnosis. Considering these lesions develop on a keratinocytic base with the histopathology within a spectrum ranging from benign keratosis to invasive squamous cell carcinoma, it is interesting that this method chooses to reveal a benign CC based on the following features:¹⁵

1. A terrace-like sign composed by horizontal parallel lamellae of dead keratin, histopathologically suggesting compact orthohyperkeratosis. The presence of this sign indicates a benign process without the invasive and fast-growing features that characterize squamous cell carcinomas.
2. Predominant dermoscopic determination of the CC's height above the diameter of the base equally indicates a benign process.
3. The absence of an erythematous base is presumed to signify a larger protrusion, which may be related to intrinsic factors of a neoplastic process. Invasive.
4. Apart from these dermoscopic signs, a clinical sign entailing the presence or absence of spontaneous pain or discomfort from palpation is observed; as well as the lesional evolution period and the patient's age, as previously mentioned.

To conclude, the presence of a terrace-like structure, length that is greater than the diameter of the base, the absence of an erythematous base, lack of pain, short evolution period and young age of patients correspond to a simple cutaneous horn, rather than an invasive squamous cell carcinoma.

CASE REPORT

A 15-year-old male patient presented with two cuneiform, elevated, parallel lesions, separated by a space of healthy skin. They are located in the superior third of the nasal dorsum, resulting in a very peculiar image. The patient refers lesions with a month evolution.

They correspond to discrete, minuscule lesions which appeared at about the same time to rapidly rise verti-



Fig. 1a. Frontal view of both lesions. Fig. 1b. Lateral view of the lesions. Skin integrity at the base of the spicules is observed.

cally and in parallel, creating a space of healthy skin between both formations. The two structures are opaque white, firm in consistency and conical with a fine point.

The base of such lesions was not infiltrated and there were not any changes signaling other pathologies (Fig. 1a and 1b). The correlation greater diameter vs. length shows predominance over the first. The patient did not refer to discomfort of any kind nor traumatic history. Furthermore, there was an absence of previous lesions in the lesional area.

Dermoscopic evaluation clearly revealed the lesions as keratinized, yellowish-white, vertical structures with a

point. The right one is constituted by a single body, while the left one presents a double pointed bifurcation (Fig. 2).

The horn's body and its end show the presence of discrete vascularization through scarce linear looped vessels. The small lesional size may limit the terrace-like sign's visualization. However, there is clear visualization of height predominance, without observing erythema at the base of the lesion (Fig. 3).

A shave biopsy, expressly solicited by the patient, was performed (Fig. 4) to avoid unnecessary scarring. It revealed the presence of parakeratotic corneous material (superficial sample), compatible with cutaneous horn.



Fig. 2. Dermoscopic magnification allows observation of the keratotic formation, bifurcation at the left lesion (white arrow) and yellowish-white color.



Fig.3. The base of the lesion exposes linear hairpin vessels (white oval).



Fig. 4. Microphotography of the histological cut with hematoxylin-eosin staining exhibiting the presence of a keratotic column. Bifurcation, revealed by dermoscopy, is observed.

CONCLUSION

A simple CC case is presented. Although it presents with the usual process manifestations, such as a lesional structure, diameter versus length correlation and dermoscopic and histopathologic features, it does reveal peculiar features that were essential to report. Firstly, the lesion's peculiar disposition, shown through independent and parallel vertical spicules located at the nasal dorsum, is very rare. Additionally, it has not been found to be reported in the literature at reach. Secondly, the age at which the lesion manifested (15) is entirely unusual. Lastly, the clinical picture's evolution period (one month), resoundingly reported by the patient, is not very usual either. Consequently, this was considered as a case report of interest.

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