

# Cutaneous Horn — Appearance May be Deceptive

ATUL KUMAR GUPTA, VIKASH ARORA, SHALABH GUPTA, TRIPTA BHAGAT, AMIT AGGARWAL

## ABSTRACT

Cutaneous horn (Cornu cutaneum), is a hard, projectile lesion developing from an unusual accumulation of keratin. The base of the horn may be flat, nodular or crateriform. Usually a cutaneous horn is several millimeters long. Histologically, there is a greatly thickened stratum corneum with scattered areas of parakeratosis. The lesion can originate from a variety of skin conditions ranging from benign to premalignant and malignant. Malignant lesions at the base of the horn usually are squamous cell carcinoma, although other carcinomas have been

reported. When a Cutaneous horn has a larger base than its height, chances of malignancy are increased. Cutaneous horns are common in Caucasians but rare in Asians and Africans. A case of a facial cutaneous horn in an old lady is being presented here, which, despite having an ominous appearance was found to be benign. Conversely, a lesion with benign appearance may be harbouring malignancy implying that appearance of lesion may be deceptive. So all cutaneous horns irrespective of their appearance must be excised and sent for histopathological examination.

**Keywords:** Cornucutaneum, Malignancy

## CASE REPORT

This 90-year-old lady presented to surgery OPD with complaint of a horn like swelling on the left cheek for 1 year which showed rapid growth recently followed by ulceration and pain. There was no history of trauma.

General physical examination was normal for her age. On local examination, base of this 4 cm long swelling was ulcerated with irregular, nodular and tender margins [Table/Fig-1a,b]. There was no fixity to facial muscles or bone. Regional lymph nodes were not enlarged. There were no other cutaneous lesions. Clinical diagnosis of cutaneous horn with possibility of squamous cell carcinoma was made.

As swelling had no fixity to adjoining structures and could be removed completely with adequate margins, it was removed under local anesthesia taking a 0.5 cm margin of normal tissue. Defect was closed primarily with subcuticular suture. Surgical wound healed with almost negligible thin line scar. At six month follow up, there were no signs of recurrence [Table/Fig-1c].

Histopathology of excised specimen [Table/Fig-2a] revealed hyperkeratosis and parakeratosis [Table/Fig-2b,c]. There were features of chronic inflammation but no evidence of malignancy.

## DISCUSSION

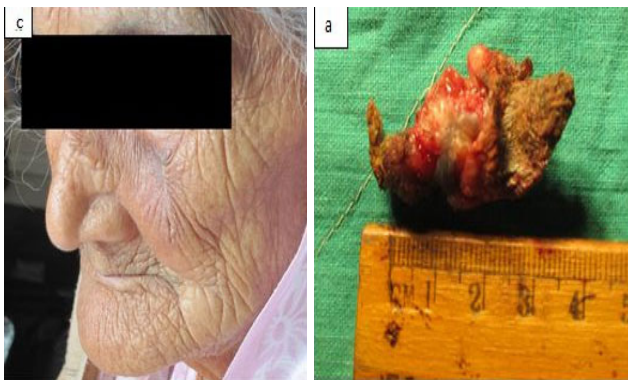
Cutaneous horns have been reported very uncommonly in Asians. These are rare in Africans [1]. The earliest well-



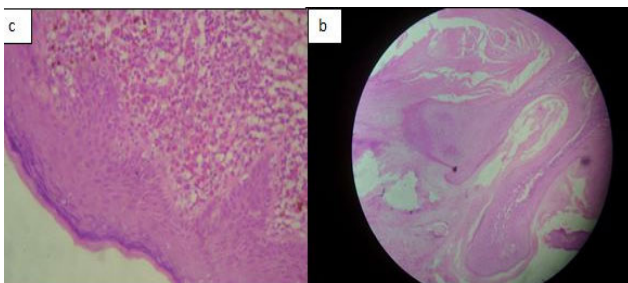
**[Table/Fig-1a,b]:** Cutaneous horn hanging from face (a) Front view (b) Side view

documented case of Cornu cutaneum from London in 1588 is of Mrs. Margaret Gryffith, an elderly woman. However, earliest observations on Cutaneous horns in humans were described by the London surgeon Everard Home in 1791 [2]. Horns are mostly solitary lesions with seborrhoeic keratosis being the most common underlying pathology. Attempt must be made to identify if any other lesion exists especially in areas not under direct vision of the patient.

Although because of its dramatic appearance the horn may attract more attention, identification of the underlying condition is more important. A multitude of conditions ranging from benign to premalignant and malignant have been reported to present as cutaneous horn e.g. seborrheic keratosis,



[Table/Fig-1c]: Post removal scar [Table/Fig-2a]: Excised Specimen



[Table/Fig-2b,c]: (a) Histopathology slide low power (b) Histopathology slide high power

viral warts, histiocytoma, Molluscum contagiosum, discoid lupus, adenoacanthoma, Bowen disease, actinic keratosis, keratoacanthoma. Even cutaneous leishmaniasis presenting as cutaneous horn has been reported [3]. Squamous cell carcinoma is the most common underlying malignancy followed by Basal cell carcinoma. Kaposi' sarcoma, Malignant melanoma and sebaceous carcinoma are the other malignancies reported [4-6]. Interestingly there is case report of even metastasis from otherwise asymptomatic renal cell carcinoma presenting as cutaneous horn [7].

The distribution of cutaneous horn usually is in sun-exposed areas, especially the face, ear pinna, nose, eyelid, forearms and dorsum of hands [8]. Involvement of legs, trunk is less common. It has been reported even on penis [9,10].

The largest study of 643 cutaneous horns is by Yu et al., [11]. According to it 39% of cutaneous horns were derived from malignant or premalignant epidermal lesions and 61% from benign lesions. In a retrospective study of 222 cases by Sonia Antunes de Oliveira Mantese 59% lesions were found to be pre-malignant or malignant. Within the group of pre-malignant lesions actinic keratosis was found in 84% while squamous cell carcinoma comprised 94% of malignant lesions [12]. Bart. et al., reported 44% incidence of underlying malignancy [13].

Features more likely to be related to a premalignant or malignant histopathological change at the base of the cutaneous horn are male sex, old age, pain, tenderness at the base of the horn, large lesions, wide base or low height-to-base ratio, erythema at the base and localization on the nose, pinnae, scalp, back of the hands and forearms [11,14,15]. Nevertheless, clinical

features are not sufficient to safely establish or rule out the malignancy of a cutaneous horn. In our case despite many ominous features like old age, ulcerated base with nodular and tender margins, large size along with ominous appearance fortunately it turned out to be nonmalignant. But opposite i.e. lesion with benign appearance and clinical features harboring malignancy may also be true. Therefore all cutaneous horns must be excised along with base and histopathological examination carried out.

## CONCLUSION

Cutaneous horn is an interesting and uncommon condition. Despite description in literature of various factors suggestive of it, presence or absence of malignancy in a given lesion cannot be predicted with certainty. Appearance of a cutaneous horn may be deceptive. Besides cosmetic reasons, excision is also recommended due to significant possibility of underlying malignancy.

## REFERENCES

- [1] Nthumba PM. Giant cutaneous horn in an African woman: A case report. *J Med Case Reports*. 2007;1:170.
- [2] Bondeson J. Everard home, John hunter, and cutaneous horns: A historical review. *Am J Dermatopathol*. 2001;23:362-69.
- [3] Srebrnik A, Wolf R, Krakowski A, Baratz M. Cutaneous horn arising in cutaneous leishmaniasis [letter]. *Arch Dermatol*. 1987;123(2):168-69.
- [4] OnakKandemir N, Gun BD, Barut F, et al. Cutaneous horn-related Kaposi's sarcoma: a case report. *Case Rep Med*2010.
- [5] Cristóbal MC, Urbina F, Espinoza A. Cutaneous horn malignant melanoma. *Dermatol Surg*2007;33:997-99.
- [6] Brauning GE, Hood CI, Worthen DM. Sebaceous carcinoma of the eyelid margin masquerading as cutaneous horn. *Arch Ophthalmol*. 1973;90:380-81.
- [7] Peterson JL, McMarlin SL. Metastatic renal-cell carcinoma presenting as a cutaneous horn. *J DermatolSurgOncol* 1983;9:815-18.
- [8] Mencia-Gutiérrez E, Gutiérrez-Díaz E, Redondo-Marcos I, Ricoy JR, García-Torre JP. Cutaneous horns of the eyelid: A clinicopathological study of 48 cases. *J Cutan Pathol*. 2004;31:539-43.
- [9] Lowe FC, McCullough AR. Cutaneous horns of the penis-an approach to management. Case report and review of literature. *J Am Acad Dermatol* 1985;13:369-73.
- [10] Gupta V, Chopra V, Verma S. A large cutaneous horn of the glans penis: a rare presentation. *Indian J Surg*. 2014;76(2):143-44.
- [11] Yu RC, Pryce DW, Macfarlane AW, Stewart TW. A histopathological study of 643 cutaneous horns. *Br J Dermatol*. 1991;124(5):449-52.
- [12] Mantese SAO, Diago PM, Rocha A, Berbert AL, Ferreira AK, Ferreira TC. Cutaneous Horn: A retrospective histopathological study of 222 cases. *An Bras Dermatol*. 2010;85:157-63.
- [13] Bart RS, Andrade R, Kopf AW. Cutaneous horns. A clinical and histopathologic study. *Acta Derm Venereol*. 1968;48:507-15.
- [14] Arvas L, Livaoglu M, Karacal N, Sozen E, Kara B. Giant cutaneous horn with naevus sebaceus. *J Plast Reconstruct Aesthetic Surg*. 2007;60:1268-69.
- [15] Pyne J, Sapkota D, Wong JC. Cutaneous horns: clues to invasive squamous cell carcinoma being present in the horn base. *Dermatol Pract Conc*. 2013;3:2.

**AUTHOR(S):**

1. Dr. Atul Kumar Gupta
2. Dr. Vikash Arora
3. Dr. Shalabh Gupta
4. Dr. Tripta Bhagat
5. Dr. Amit Aggarwal

**PARTICULARS OF CONTRIBUTORS:**

1. Associate Professor of Surgery, Santosh Medical College, Ghaziabad, UP, India.
2. PG 3<sup>rd</sup> year Surgery, Santosh Medical College, Ghaziabad, UP, India.
3. Professor of Surgery, Santosh medical college, Ghaziabad, UP, India.

4. Professor of Surgery, Santosh Medical College, Ghaziabad, UP, India.
5. Assistant Professor of Surgery, Santosh Medical College, Ghaziabad, UP, India.

**NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:**

Dr. Atul Kumar Gupta,  
House no. 18 3<sup>rd</sup> E, Nehru nagar, Ghaziabad, UP, India.  
E-mail : atulsshubhig@gmail.com

**FINANCIAL OR OTHER COMPETING INTERESTS:**

None.

Date of Publishing: **Apr 01, 2015**