

Well-Differentiated Squamous Cell Carcinoma Presenting as Branched Eyelid Cutaneous Horn: A Case Report with Review of Literature

Abstract

Cutaneous horns are uncommon lesions consisting of keratotic material, resembling that of an animal horn. They account for 4% of all eyelid tumors. We report a case of giant cutaneous horn (2 × 1.75 cm) of 4-year duration arising from the right lower lid. Growth excision with direct closure of the defect was done. Histopathological examination revealed it to be well-differentiated squamous cell carcinoma. Most important concern while evaluating cutaneous horns is the underlying condition, which may be benign or malignant. Therefore, histopathological examination is mandatory.

Keywords: Cutaneous horn, eyelid tumors, squamous cell carcinoma

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Introduction

Cutaneous horn (cornu cutaneum) refers to a conical protuberant mass of keratin arising from the surface of the skin. It is a relatively rare tumor, most often arising on sun-exposed skin in elderly men.^[1] The significance of the horn corresponds to an underlying condition, which may be benign, premalignant, or malignant.^[2] We report the case of a male patient with an unusually large horn having multiple projections arising on the lower eyelid.

Case Report

A 45-year-old male presented to the ophthalmology outpatient department with the chief complaint of a slowly growing conical mass on the right lower eyelid for 4 years. Physical examination revealed a firm horn-like lesion of 1.5–2.0 cm in height and 1.75 cm wide at the base with multiple branches [Figure 1a and c]. Purulent and blood-stained discharge was present at the base [Figure 1b]. Lesion was pedunculated with hyperkeratotic surface without associated lymphadenopathy. Baseline investigations included hematocrit, viral serology, and blood sugar levels. Excision with wide margins at the base was performed under local anesthesia using 1% lidocaine with adrenaline. The defect was closed directly [Figure 1d]. Microscopic examination of the sections from the base of the horn showed sheets

and nests composed of several infiltrating large tumor cells with abundant cytoplasm and large hyperchromatic irregular nuclei having prominent nucleoli. There were areas showing formation of keratin pearls. The features were consistent with well-differentiated keratinizing squamous cell carcinoma [Figure 2a and b]. Sections from the tip of the horn showed lamellated keratotic material, epidermal hyperplasia, and a largely unremarkable dermal stroma. The margins of the surgical specimen in histopathology were free from tumor. No recurrence was observed after follow-up of 2 years.

Discussion

Cutaneous horn (cornu cutaneum) is a relatively rare tumor. It accounts for 4% of all eyelid tumors.^[1] These lesions consist of keratotic material resembling that of an animal horn, however, unlike true horns, it has no bony core.^[3]

The earliest well-documented case of cornu cutaneum is of Mrs. Margaret Gryffith, an elderly Welsh woman reported from London in 1588. A showman, who advertised it in a pamphlet, exhibited her for money. However, earliest observations of cutaneous horns in humans were described by British surgeon Everard Home in 1791.^[4] Farris from Italy first described the gigantic horn in man as well as documented a case report with adequate histology.^[5]

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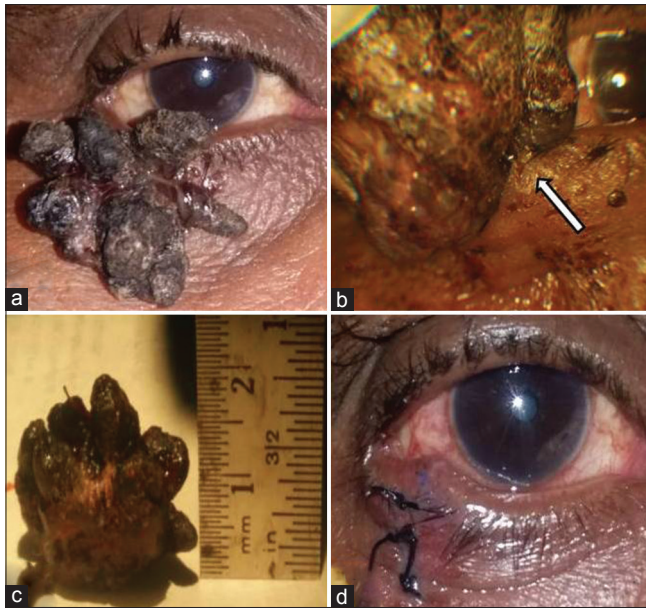


Figure 1: (a) Unusually large horn on the eyelid with multiple projections; (b) Purulent and bloody discharge present at the base of the horn (arrow); (c) Excised specimen; (d) Postoperative photograph

An important concern of these lesions is the underlying condition, which may be benign or malignant. Seborrheic keratosis, verruca vulgaris, squamous papilloma, chalazion, actinic keratosis, basal cell carcinoma, and squamous cell carcinoma have all been described in association with cutaneous horns.^[6] In general, malignant or premalignant conditions are more common in old males, especially when the cutaneous horn is found on the face, pinna, dorsum of hands, forearms, or scalp, or when it has a larger base or base-height ratio. However, cutaneous horns on the eyelids are more likely to show premalignant or malignant base pathology than in any other part of the body.^[7,8] Mencia-Gutiérrez *et al.* studied 48 cases with eyelid horns and documented that 23% of them were premalignant or malignant. In addition, they reported average dimensions of the base (0.85 cm, range 0.5–1.7 cm), and height (1.29 cm, range 0.1–2.5 cm in height) of malignant tumors.^[6] However, in the same documented case series, only one case had the horn size of more than 2.0 cm. Here, we report a cutaneous horn having multiple branches measuring 2.0 cm in maximum height with a base measuring 1.75 cm, which is in accordance with true cutaneous horns where the height of the horn should be at least one-half the width of the base along with the corresponding histopathological features of well-differentiated keratinizing squamous cell carcinoma.

Similar to the stated case series, presence of squamous cell carcinoma in our case was associated with the bigger size of horn. Although it is very difficult to distinguish clinically between benign, premalignant, and malignant lesions, large size of lesions, ulceration, blood-stained discharge, and tenderness at the base of the lesions are signs in favor

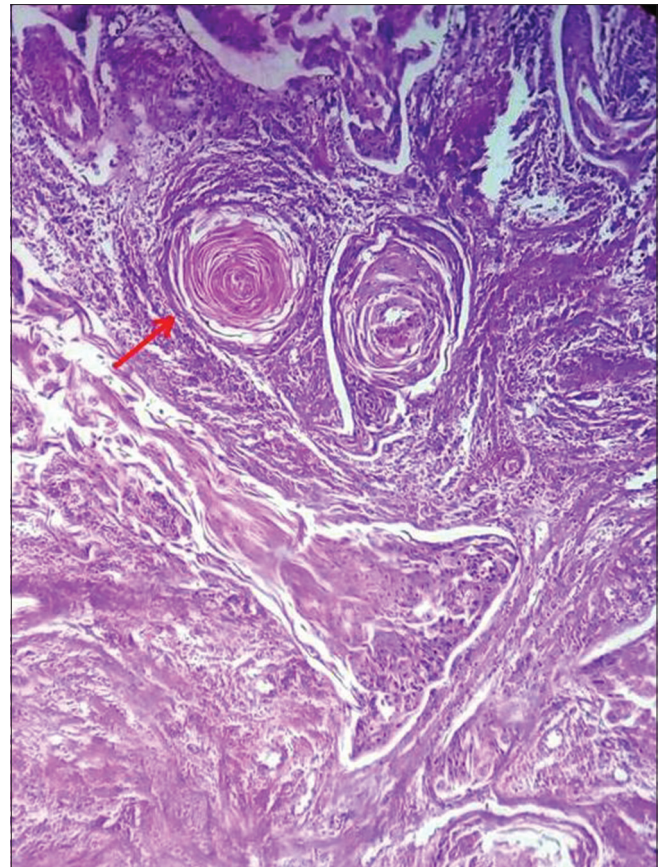


Figure 2: (a) Histopathological features of the base of horn showing sheets, nests with several infiltrating large tumor cells, and areas showing formation of keratin pearls (upper right arrow) (H and E, $\times 40$), Histopathological picture in higher power showing nests of large tumor cells with abundant cytoplasm and large hyperchromatic irregular nuclei with prominent nucleoli (H and E, $\times 400$)

of malignancy. Therefore, microscopic examination of the base of the lesion is necessary to rule out associated carcinoma; complete excision is the treatment of choice.

Conclusion

Cutaneous horns of eyelid are a relatively rare entity, which can be diagnosed clinically as a conical projection above the surface of the skin. The significance of these lesions is the underlying condition, which may be benign or malignant. Therefore, in each patient with cutaneous horn, underlying lesion should be diagnosed by appropriate biopsy and histopathological examination.

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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Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Bondeson J. Everard home, John hunter, and cutaneous horns: A historical review. *Am J Dermatopathol* 2001;23:362-9.
2. Nthumba PM. Giant cutaneous horn in an African woman: A case report. *J Med Case Rep* 2007;1:170.
3. Lennox B, Sayed BR. Cutaneous horn. *J Pathol Bacteriol* 1964;88:575.
4. Bondeson J. Everard Home, John Hunter, and cutaneous horns: A historical review. *Am J Dermatopathol* 2001;23:362-9.
5. Farris G. Histological considerations on a case of a voluminous cutaneous horn. *Minerva Dermatol* 1953;28:159-65.
6. 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.
7. Bart RS, Andrade R, Kopf AW. Cutaneous horn. *Acta Derm Venereol* 1968;48:507.
8. Yu RC, Pryce DW, Macfarlane AW, Stewart TW. A histo-pathological study of 643 cutaneous horns. *Br J Dermatol* 1991;124:449.