

## CASE REPORT

## A Giant Cutaneous Horn

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**A** cutaneous horn is a uncommon and rare lesion. It is a conical projection of hyperkeratotic epidermis. Vary from a few milimeters to a several centimeters in length. The cutaneous horn is a clinical diagnosis and different histologic lesions have been documented at the base of the keratin mound. We presented a 77 years old female with a large "horn" of 3 years duration, arising from her forehead. Excision was performed and defect was covered by split thickness skin graft. Hystopathology reported keratoacanthoma at the base of the horn. By reviewing cutaneous horns presented in literature we can declare that this is one of the biggest cutaneous horn recorded cases. Also it is important to mention that horn itself is not the most important issue, but rather the underlying condition, which may be malignant. **Keywords:** giant cutaneous horn, keratosis.

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## 1. INTRODUCTION

Cutaneous horn is relatively uncommon lesion, also known by the Latin name Cornu cutaneum. It is conical hyperkeratotic projection above the surface of the skin that often resembles the horn of an animal. May be straight or curved and twisted, and vary from a few millimeters to several centimeters in length (1,2,3). Cutaneous horns are rare, no incidence or prevalence has been reported. Most commonly they occurred in light-skinned patients 50 years or older. No consistent sex pattern has been demonstrated (4). The cause of cutaneous horns is still unknown, however it is believed that exposure to radiation can trigger the condition. This is evidenced by a higher rate of cases occurring on areas that are exposed to sunlight. Other cases have reported cutaneous horns arising from burn scars (1). As with many other wart-like skin conditions, a link to the HPV virus

family, especially the HPV-2 subtype has been suggested (5,6). It may arise from any part of the body, and about 30% arise from the face and scalp (1). The term "cutaneous horn" is a clinical, not true pathologic diagnosis and can occur in association with, or as a response to, a wide variety of underlying benign, pre-malignant, and malignant cutaneous diseases (7,8,9,10,12,13). Benign lesions associated with cutaneous horns include angiokeratoma, angioma, benign lichenoid keratosis, cutaneous leishmaniasis, dermatofibroma, discoid lupus, infundibular cyst, epidermal nevus, epidermolytic acanthoma, fibroma, granular cell tumor, inverted follicular keratosis, keratotic and micaceous pseudoepitheliomatous balanitis, organoid nevus, prurigo nodularis, pyogenic granuloma, sebaceous adenoma, seborrheic keratosis, trichilemmoma and verruca vulgaris (14). Lesions with premalignant or malignant

potential that may give rise to cutaneous horns include adenoacanthoma, actinic keratosis, arsenical keratosis, basal cell carcinoma, Bowen disease, Kaposi sarcoma, keratoacanthoma, malignant melanoma, Paget disease, sebaceous carcinoma and squamous cell carcinoma (15). The base of the horn may be flat, nodular, or crateriform. No clinical features reliably distinguish between benign and malignant lesions and for appropriate histopathological diagnosis, this lesion should undergo biopsy at the base of the horn (7,14,16,17,18). Treatment recommendation is contingent upon the type of lesion at the base. In the case of benign lesions at the base of the horn, the biopsy is both diagnostic and therapeutic. If it is malignant it is necessary to excise with appropriate margins. Patient discovered to have horns with an underlying squamous cell carcinoma also should be evaluated for metastasis (8).

## 2. CASE REPORT

A 77 years old woman with a permanent tracheostomy, with a history of an operation on her neck 17 years ago (without additional medical documentation), requested primary medical evaluation for a slowly growing asymptomatic lesion that had been present for a 3 years. The lesion was located on her forehead. Initially, she had hyperpigmented plaque about 2 cm in diameter and the horny growth developed gradually over the plaque. There was no history of pain, discharge, tenderness or bleeding from the growth. No loss of weight or appetite was present. Physi-





**FIGURE 1.** Cutaneous horn on the forehead : anterior view

cal examination revealed a hyperkeratotic curved growth on the right side of her forehead, of approximately 14 cm in length and about 8 cm base diameter, yellow-gray in color, with a firm consistency (Figure 1 and 2). There was no regional lymphadenopathy. A clinical diagnosis of cutaneous horn was made. The lesion completely excised surgically and the defect was covered by split thickness skin graft (Figure 3) under general anesthesia. Histopathology reported keratoacanthoma cutis revealing that the lesion had been fully excised with free surgical margins. No clinical relapses were detected after 6 months of follow-up.

### 3. DISCUSSION AND CONCLUSION

A cutaneous horn (cornu cutaneum) is a protrusion from the skin consisting of cornified material organized in the shape of a horn, ranging in size from a few millimeters to many centimeters (4). Distribution of cutaneous horns usually is in sun-exposed areas, particularly the face, pinna, nose, forearms and dorsal hands (5,6). In this case report presented cutaneous horn was on sun exposed area, on the right side of forehead.

In some study malignancy is present in 16–20% of cases, with squamous cell carcinoma being the most common type (19). In the study of Bart et al 44% patients had underlying malignancy (4). According to the study of 643 cutaneous horn, reported by Yu et al, 39% of cutaneous horns were derived

form malignanat or premalignant epidermal malignancy (14). Most cutaneous horns arise from actinic keratoses (20) in our case it was keratoachantoma. In general, malignant or premalignant conditions are more common in older male patients (4), in this case report it was female 77 years old. Spira and Rabonovitz concluded that cutaneous horns in associated with a malignant or premalignant base is more common in patients with a past history of other malignant or premalignant lesions (21). In our case report clinical examination revealed patient who undergone total laryngectomy 13 years ago. Treatment options include wide surgical excision with careful histological examination to exclude a focus of malignancy (20). In case report we presented all surgical margins were free. Some prominent cases described in literature like Madame Dimache called Widow Sunday, a French woman living in Paris in early nineteenth century, grew for a 6 years, in age 76 , 24.9 cm horn from her forehead (22). Also there is in literature a case of African woman with giant cutaneous horn 6 cm in hight and 3 cm base diameter (1). As well as other described cases of giant cutaneous horns in a man maximum diameter of 3 cm (23) and in a woman 84 years old on the dorsum of her right hand approximately 7 to 8 cm in length (24). So, by review-



**FIGURE 3.** CUTANEOUS horn on the forehead : profile view (right side)

ing cutaneous horns presented in literature we can declare that this is one of the biggest cutaneous horn recorded cases. Also it is important to mention that the important issue is not the horn



**FIGURE 5.** Postoperative result after 2 months.

itself which is dead keratin, but rather the underlying condition, which may be malignant (4).

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