



Giant Cutaneous Horn of Leg: A Case Report

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Abstract

A 35-year-old male presented with a giant cutaneous horn over the right leg. The patient was continuously exposed to minor trauma/irritation at the site of development of the horn. There was bleeding from the base of horn due to trauma. Excision of the cutaneous horn with an elliptical incision and primary closure of defect was done under spinal anesthesia. Histopathological examination showed underlying seborrheic keratosis.

Keywords: Cutaneous horn, giant, surgical excision.

Introduction

A cutaneous horn is a conical, dense, hyperkeratotic protrusion and morphologic designation referring to an unusually cohesive keratinized material derived from base keratinocytes. But it is not a true pathologic diagnosis. In the history, the documented case of cutaneous horn was in an elderly Welsh woman in London who was displayed commercially as an anomaly of nature in 1588 (1). Cutaneous horns are usually found on chronic sun damaged skin, but only 30% arises from the face and scalp. Anatomic sites for horn predilection include the exposed areas on the head, the dorsa of the hands and forearms. Cutaneous horns occur in association with, or as a response to, a wide variety of underlying benign (61.1%), pre-malignant (23.2%), and malignant (15.7%) cutaneous diseases. The treatment of choice for

cutaneous horns is shave excision with subsequent histopathologic evaluation to rule out underlying malignancy and to guide potential further therapy. Here we report a patient with giant cutaneous horn on the leg that was successfully treated by excision and primary wound closure.

Case Report

A 35 year old male autorikshaw driver presented with a horny projection on his right leg of 10 years duration. It started as a small hyper pigmented swelling initially and gradually horny growth developed. There was no history of pain or discharge on that site. Tip of the horn broke following trauma.

On detailed history it was found that when he drives autorikshaw his right leg was exposed to continuous minor trauma/irritation. On examination, there was a horny, grayish, brown

projection 5 × 4 cm size (Figures 1 & 2) arising anterior aspect of the right leg. Ulceration and bleeding was noticed around the horn. Regional lymph nodes were not palpable.

Excision of the cutaneous horn with an elliptical incision and primary closure of defect was done under spinal anesthesia. Biopsy revealed

hyperplastic skin with hyperkeratosis and parakeratosis (Figure 3). The epidermis showed irregular acanthosis, elongated rete ridges and papillomatosis and horn cyst. There was sparse chronic inflammatory cells infiltration in the dermis. Features were suggestive of cutaneous horn overlying a seborrheic keratosis.

Table 1: The table shows various causes of cutaneous horns.

| Common causes | Other causes |
|-------------------------|----------------------------|
| Actinic keratosis | Bowen's disease |
| Seborrheic keratosis | Benign fibroma |
| Verruca vulgaris | Basal cell epithelioma |
| Squamous cell carcinoma | Dermatofibroma |
| Molluscum contagiosum | Keratoacanthoma |
| | Pyogenic granuloma |
| | Angiokeratoma |
| | Benign lichenoid keratosis |
| | Epidermal cyst |
| | Epidermolytic acanthoma |
| | Kaposi's sarcoma |
| | Sebaceous adenoma |
| | Trichilemmoma |
| | Verrucous epidermal nevus |

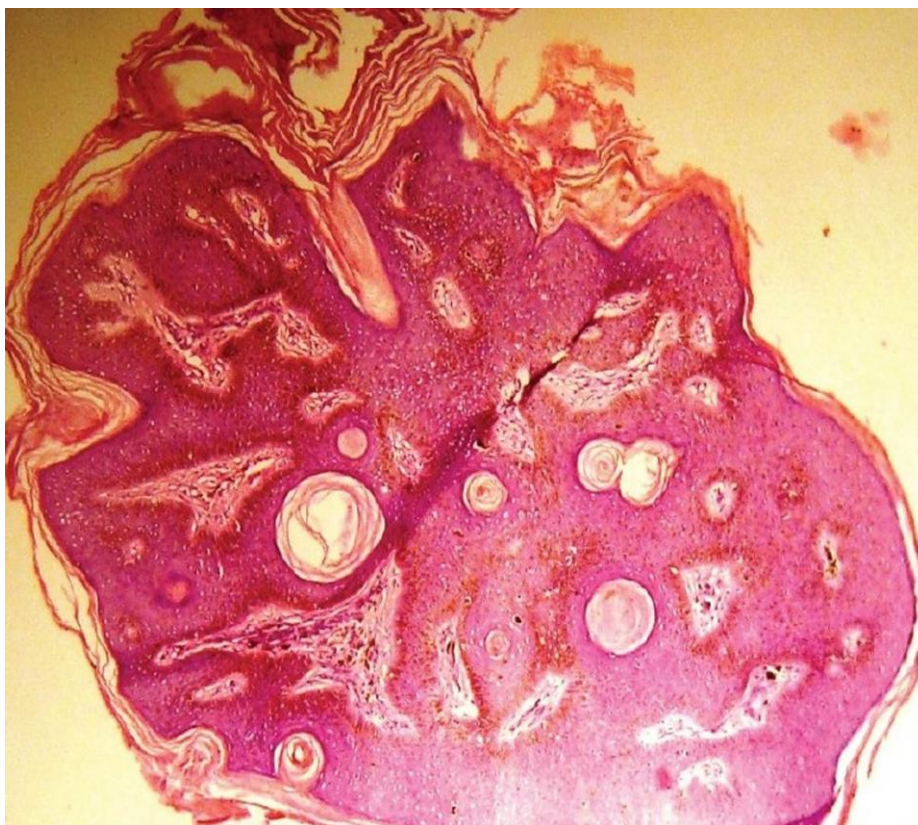
Figure 1: Cutaneous horn on the anterior aspect of right leg (closer view).



Figure 2: Cutaneous horn on the anterior aspect of right leg with measuring scale in situ.



Figure 3: Histopathology with H&E stain reveals hyperplastic skin with hyperkeratosis and parakeratosis with irregular acanthosis in epidermis.



Discussion

Cutaneous horns are yellowish, brown keratotic excrescence and usually solitary. Giant horns are few centimeters long with height and width ration is 1:2⁽²⁾. Cutaneous horns are nodules composed of compact keratin that project above the surface of the skin. They differ from animal horns by the absence of a central bone⁽³⁾.

Cutaneous horn occurs usually is in sun-exposed areas, particularly on the face, pinna, nose, forearms and dorsum of hands⁽⁴⁾. And, approximately 30% of cutaneous horns are found on the upper face and scalp⁽¹⁾. In the present case the cutaneous horn was located on the lower extremity. Horn may also develop on areas not exposed to sunlight such as the penis, lower lip mucosa, and nasal vestibule⁽³⁾.

The solitary horns may have different pathologies at their base (Table 1). Base of the horn may be flat, nodular or crateriform. More than half of all cutaneous horns lie on benign lesions ranging from simple epidermal nevi, warts, actinic keratosis, seborrheic keratosis, etc. However, a few may have squamous or basal cell carcinoma at its base. A case of cutaneous horn originating from Kaposi sarcoma and Psoriasis has also been described⁽⁵⁾.

Most cutaneous horns are benign. Malignancy is present in 16–20% of cases, with squamous cell carcinoma being the most common type⁽⁶⁾. Risk factors for underlying malignancy include advanced age, male sex, large base or height-to-base ratio, and presence on a sun-exposed location⁽³⁾.

Histologically, there is a greatly thickened stratum corneum with scattered areas of parakeratosis. The horn at the base will display features characteristic of the pathologic process responsible for the development of the horn.

Excision biopsy of the lesion and histopathological examination to rule out malignancy is recommended. Malignancies should be excised with appropriate margins and evaluated for metastasis⁽³⁾. Carbon dioxide or Neodymium YAG laser may be used for patients who refuse

surgery⁽⁷⁾. In conclusion authors would like to add this rare case of giant cutaneous horn of leg to the literature.

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