# A Giant Cutaneous Horn: Case Report

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#### Abstract

Cutaneous horns are conical projections occurring in different parts of the body preferably sun exposed areas. Lesions are clinically significant as they have potential for harboring premalignant and malignant entities. Histologically consists of hyper-keratotic material and look similar to animal horns except lack a central bony core that differentiates them from the animal horns. We present a case of a 51-year-old man who presented with a conical projection over the center of the scalp for 8 years, the horn was detached 8 months prior visiting us but regrew, and clinically it was diagnosed as a cutaneous horn. Excision of the horn along with the base was done spacemen taken for histopathological examination which showed no malignant changes. The standard treatment of choice for cutaneous horn is excision of the lesion with adequate margins followed by histological confirmation for further treatment course.

Keywords: Cutaneous horn

#### Introduction

Cutaneous horn is a clinical diagnosis referring to a conical projection of cornified material above the surface of the skin that resembles animal horn<sup>[1]</sup>. Unlike animal horns that usually contains an osseous cast, cutaneous horns consist solely of cornified proliferative keratinocytes without a bony component <sup>[2]</sup>. It is more common in white race and uncommon among Africans. Cutaneous horn may arise from any part of the body, 30% arise from face and scalp sun exposed areas. The lesions are thought to have the origin of benign, premalignant and malignant potential 61.1%, 23.3% and 15.7% of cases respectively <sup>[3]</sup>.

#### **Case Presentation**

A 51 year old male presented with an eight year old horn on the scalp. It started as an itchy lesion, which kept growing slowly, he visited several health facilities where they prescribed topical medications however it didn't resolve and kept increasing in size, it was later became associated with pain once touched or shaken. About 8 month prior visitation to our clinic he was seen at periphery hospital and the horn was enucleated, but the horn regrew to the size (Figure 1). He successfully concealed the horn by wearing a cap.

On examination, he was conscious, healthy looking man, with a hard horn on the mid scalp, dry, hard, connected to the skin



Figure 1: Regrowth of Horn

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Figure 2: Plain X-ray of the skull showing no involvement of the bony part figures



Figure 3: Remarkable Recovery

at its base, tender on moving, mobile in either sides and had no changes to the skin color adjacent to the lesion. Plain x ray of the skull showed no involvement of the bony part (Figure 2). A clinical diagnosis of cutaneous horn was made. Patient was advised for an excision biopsy and he happily consented as he had looked for definitive treatment long time without success. A wide local excision was done under local anesthesia, adequate margins was taken and the patient had an remarkable recovery (Figure 3). Histological examination of the spacemen showed it consists of hyperkeratotic and acanthotic stratified squamous epithelium without malignant changes.

#### Discussion

Cutaneous horns are rare but not uncommon skin lesions in Caucasians and few cases reported among Africans and Asians <sup>[3,4]</sup>. The exact pathogenesis of the cutaneous horn is unknown, it is assumed that cellular aging, photodamage, and subsequent epithelial dysfunction contribute to their manifestation <sup>[5]</sup>. The

true incidence and prevalence rates of cutaneous horns are not documented in the literature. However, are more commonly found in the elderly population between 60 to 80 years of age. They are also more likely to be premalignant or malignant in affected individuals <sup>[6,7]</sup>.

Literature search documented a giant cutaneous horns of 22 cms and 32 cms respectively <sup>[3, 8]</sup>. In this case, we document a giant conical projection at the center of the scalp in a 51 year old African male, the horn was detached 8 months ago but regrew, and clinically the lesion was diagnosed as cutaneous horn. The lesion is more common in geriatrics and the peak age is eighth and ninth decades, male and female being equally affected although males have an increased risk of having malignant entities <sup>[8]</sup>. Cutaneous horn usually arises in areas exposed to the sun but can also arise in sun-protected areas 1. The most common sites are on the head, ears, back of hands and forearms <sup>[3, 8]</sup>. There are some reported cases which arise from areas not exposed to sunlight such as the chest, shoulder and penis <sup>[9, 10]</sup>. Even

though 60% of the cutaneous horns are benign, the possibility of skin cancer should always be kept in mind. <sup>[11]</sup> Histologically the horns consists of compact, redundant hyperkeratosis with or without orthokeratosis or parakeratosis. However lesions >1 cms are not suitable for histological analysis, histopathology of the underlying disease will be found under the cornified projection <sup>[11]</sup>.

Cutaneous horns can be treated surgically, medically, or via laser ablation. Clinical diagnosis complimented with histological finding <sup>[11]</sup>. Historically, cutaneous horns have been treated using simple detachment and cauterization of the base <sup>[12]</sup>. With inadequate treatment, recurrence rates are higher <sup>[5]</sup> as it has occurred in this case whereby simple detachment was done and the horn recurred.

Currently, excision biopsy remain the treatments of choice, ensuring that the base of the horn is preserved for histological preparations [8, 13]. Premalignant or malignant cases, wide local excision is the preferred treatment. Following excision, histology of the spacemen will dictate further treatment. For benign lesions, observation is warranted, [14] whereas pre-malignant and malignant lesions adjuvant therapies will be warranted. Less invasive therapies includes ablative lasers electro cautery and cryotherapy <sup>[13, 15]</sup> has also been described. These therapies are not recommended because they do not preserve histological spacemen for examination. Most cutaneous horn are benign lesions as was shown in a large study of 643 cases, of which 38.9% were malignant and 61.1% were benign lesions as shown in our case after histological examination. Squamous cell carcinoma it develop from 94% of all malignant cutaneous horns cases [6, 13].

Differential diagnosis include; nongenital warts, perforating pilomatricoma, ectopic nail, seborrheic keratosis, actinic keratosis, squamous cell carcinoma, keratoacanthoma, bowen disease, melanoma, trichilemmal carcinoma and sebaceous adenoma

Diagnosis is confirmed mostly via clinical presentation, and histopathological analysis is crucial to determine underlying etiology and subsequent treatment plan.

### Conclusion

Cutaneous horns are uncommon skin lesions and probably ignored. Majority are benign however likelihood of harboring malignancy shouldn't be overlooked. Excision biopsy with adequate margins is the standard treatment of choice. Histological examination of the excised spacemen will determine the course of treatment after excision.

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