

Case Report

Penile Cutaneous Horn Mimicking Carcinoma: A Rare Case

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ABSTRACT

Cutaneous horns are cornified hyperkeratotic lesions on the skin, usually present on photo-exposed areas such as the face and scalp. Its presence on the penis is very rare and represents the most unusual site. The role of chronic irritation, phimosis, surgical trauma, and radiotherapy have been implicated in penile horn formation. Penile horns present as elongated, keratinous, white or yellowish projections that range from a few millimeters to centimeters in size arising from the glans penis. Histopathology of the keratotic mass reveals nothing but keratin. One-third of cases of penile horns are associated with underlying malignancies. Standard treatment is electrosurgical excision with the removal of a broad base.

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INTRODUCTION

Cutaneous horns are also known as cornu cutaneum, a well-defined cone-shaped lesion with hyper-keratotic features, conical in shape, and usually with a bulging erythematous base.¹ This type of lesion is most commonly found on the scalp and face which are photo-exposed skin and predominately occurs in males in the age group of more than 50 years.² Its location on the glans penis is very rare.

CASE REPORT

We present a case of cutaneous horn at an unusual site over the penis. A fifty-one-year-old male presented in the hospital with a complaint of inability to retract the foreskin. On examination, his foreskin was tight, adherent, and could not be retracted. He was planned accordingly but in an operating room when his

foreskin was retracted under anesthesia a lesion was noticed on the ventral surface of his glans which was conical in shape, hard in consistency, and approximately about two centimeters in size. The lesion was surgically excised with a free margin and sent for histopathology with a clinical diagnosis of penile carcinoma and was planned to further workup into the case after the histopathology report. Clinically patient had no inguinal lymph nodes enlarged and no other physical findings. This patient was discharged without any complications with a satisfactory result. In follow up the patient was satisfied with the surgery and had no complaints.

Histopathologically section showed tissue lined by hyperplastic stratified squamous epithelium with overlying protuberance formed by a thick lamellated keratin layer. Dermis showed

moderate to dense chronic inflammatory cell infiltration and foci of hemorrhage present. There was no evidence of dysplasia or malignancy. The overall histological features were those of the cutaneous horn.



Figure 1: Growth over the penis

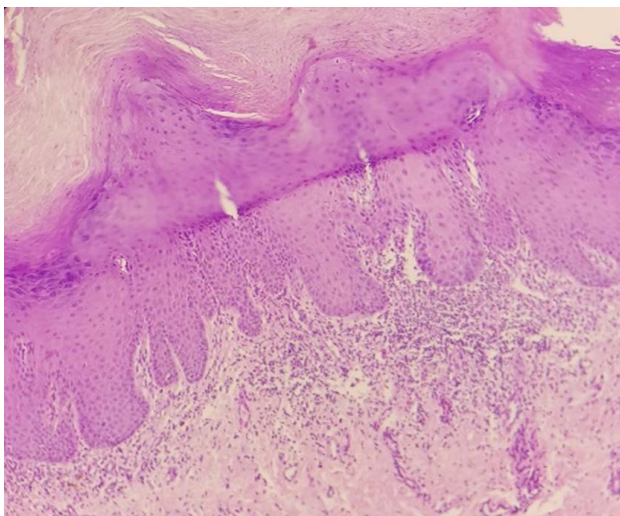


Figure 2: Photomicrograph showing tissue lined by hyperplastic stratified squamous epithelium with overlying protuberance formed by a thick lamellated keratin layer (H&E stain; X50).

DISCUSSION

Cutaneous horn (synonyms; Cornu cutaneum; Cornu humanum) is a conical, hyperkeratotic protrusion that often resembles an animal horn. The term “cutaneous horn” is a morphologic designation referring to unusually cohesive keratinized material and not a true pathologic diagnosis.³ The earliest documented case of cutaneous horn, or cornu cutaneum, was that of an elderly Welsh woman in London who was displayed commercially as an anomaly of nature in 1588.⁴ Cutaneous horns usually are asymptomatic, nontender hard growths and sometimes an incidental finding by the treating surgeon like in our case.

Though histopathology can diagnose the disease other investigations are required particularly in patients with underlying malignancy. Approximately one-third of penile cutaneous horns are associated with an underlying malignancy, and in those cases, magnetic resonance imaging should be used to get further information on the extent of the disease.⁵ But Lynch et al⁶ consider all penile horns to be premalignant lesions sporadically associated with squamous cell carcinoma, or low-grade malignancy of the penis, as in our specific case.

The etiology is not clear but chronic irritation, phimosis, surgical trauma, and radiotherapy have been implicated in penile horn formation.⁷ The major emphasis is on the long-standing phimosis with chronic, prolonged preputial inflammation as in our case. Some advocates human papillomavirus (HPV) infection may be one of the causative factors. Solivan *et al.* identified a positive HPV reaction for HPV 16 using *in situ* DNA hybridization.⁸ Other than HPV, etiology can be broadly classified into benign (warts, seborrheic keratitis, molluscum contagiosum, and inverted follicular keratosis), premalignant (Bowen's disease and solar keratosis), and malignant (basal cell carcinoma, squamous cell carcinoma, and Kaposi sarcoma).

CONCLUSIONS

The penile horn fascinates dermatologists, urologists, and general surgeons alike because of the morphological appearance and presentation almost similar to penile carcinoma. The penile horn is only a morphological entity and the true pathology is masked by it. Hence, the histological report plays an important role. If it is associated with malignancy, partial penectomy or further appropriate management should be done.

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