

Case Report

Cutaneous horn developing over a verrucous carcinoma: a rare entity with an unusual presentation

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ABSTRACT

Cutaneous horn (cornu cutaneum) is a very rare lesion resembling the horn of an animal. It consists of a projectile, conical, dense, hyperkeratotic nodule. The horn is frequently conical, made of stratum corneum. Diagnosis is easily made clinically and can be confirmed by histopathology. We report a case of 65 year old female, who had a cutaneous horn for over 5 months, which turned out to be growing over a verrucous carcinoma.

Keywords: Cornu cutaneum, Verrucous, Cutaneous horn, Malignant

INTRODUCTION

The main purpose of this case report is to enhance our knowledge about the occurrence of cutaneous horns and the pathological factors contributing to it. Cutaneous horn occurs in coalition with or as a reaction to a wide variety of underlying benign premalignant and malignant skin diseases.¹

The earliest well-documented case of cornu cutaneum from London in 1588 is of Mrs. Margaret Gryffith, an elderly Welsh woman. However, earliest observations on cutaneous horns in humans were described by the Everard Home in 1791.² Farris from Italy first described the gigantic horn in man as a well documented a case report with adequate histology.³ Cutaneous horn or cornu cutaneum is a keratotic mass arising from the cutis.⁴ Cutaneous horns most frequently occur in sites that are exposed to actinic radiation or burns, and hence, are commonly found on exposed parts like upper parts of the face, eyelid, neck, scalp, nose but as shown in this case report, these may occur in other non-exposed sites also. The color of these horns can vary from white to yellow to black depending on the amount of keratin deposition. Cutaneous horns may be straight or curved and twisted, and vary from a few millimeters to several centimeters in

length. Over 60% of the lesions are benign, however, malignant or premalignant lesions might be associated with it.⁵ Keratosis, Bowen's disease, trichilemma, sebaceous molluscum, verruca, basal cell carcinoma, epidermoid carcinoma and malignant melanoma have all been described in association with cutaneous horns.⁶ Because of their malignant potential, the lesions must always be considered for histopathological evaluation. Here we report a patient of cutaneous horn on top of verrucous carcinoma.

CASE REPORT

A 65-year-old female presented with a bony horn like painless growth over the lateral aspect of right thigh of more than 5 months duration (Figure 1). Initially patient noticed small cystic swelling over the lateral aspect of right thigh 50 years back. She did not take any treatment for the swelling as it was painless and was not interfering with her day to day activities. Three years back she developed pain and pus discharge from swelling. Swelling was excised by an unqualified doctor. She slowly developed this cutaneous horn over the swelling since 5 months. Local examination revealed a hard curved growth on the lateral aspect of right thigh, measuring about 8 cm in length and about 5 cm wide at

the base. The growth was not fixed to underlying structures. There was no pain, discharge or bleeding from swelling. There was no regional lymphadenopathy. Clinical diagnosis of cutaneous horn over lateral aspect of right thigh was made. Wide local excision of the swelling was done and the specimen was sent for histopathological examination. Histopathological examination revealed features of a cutaneous horn developing over a verrucous carcinoma.



Figure 1: Appearance of cutaneous horn, on lateral aspect of right thigh.

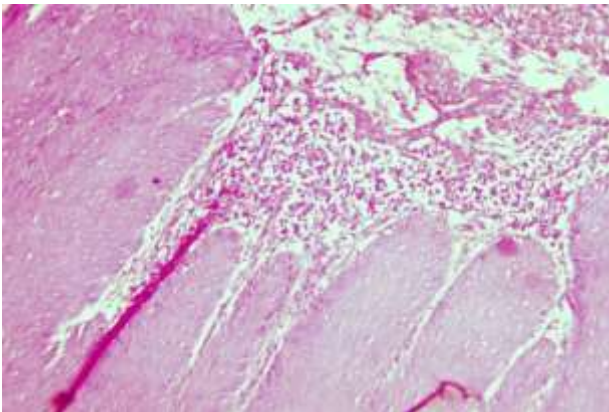


Figure 2: Microscopic evaluation reveals a papillated surface with hyperkeratosis, parakeratosis, and marked epithelial hyperplasia.

DISCUSSION

Cutaneous horns are rare skin lesions caused by overgrowth of the most superficial layer of skin.⁷ A verrucous carcinoma is a well-differentiated variant of a low-grade squamous cell carcinoma. It usually appears in the oral cavity, anogenital region, or plantar surface of the foot, but can arise anywhere on the skin. Keratoacanthoma surface. Although rare, verrucous carcinoma has been reported to arise on the buttocks, maxillary antrum, and face. A cutaneous horn is considered as reactive skin pathology with an unknown etiology. Though the gross examination of cutaneous horns is similar to that of animal horns but they are a

different entity microscopically. The animal horns are composed of superficial hyperkeratotic epidermis, dermis, and centrally positioned bone. No such axially positioned well-formed bone is observed in the human cutaneous horns. On the other hand, no cystic structures lined by tricholemmal-type epithelium are seen in of the true animal horns.⁸ Clinical examination of cutaneous horns shows a hard, curved yellowish-brown excrescence having a series of laminated circumferential ridges, which is surrounded either by normal looking epidermis or by an acanthotic collarette. Horns are extremely tough but may become soft if soaked in a weak solution of potash. These horns can be derived from a variety of benign or malignant epidermal lesions. The histological appearance of the basal layer of the cutaneous horn is in the spectrum of seborrheic keratosis to infiltrated squamous cell carcinoma. According to a largest study by Yu, et al, 61% of cutaneous horns were derived from benign lesions and 39% were derived from malignant or premalignant epidermal lesions.⁵ Largest study of 643 cutaneous horns was reported by Yu, et al.⁵ According to them 39% of cutaneous horns were derived from malignant or premalignant epidermal lesions, and 61% from benign lesions.

CONCLUSION

The case presented demonstrates that verrucous carcinoma can occur in multiple sites and as a cutaneous horn. Cutaneous horns are rare lesions. Excision biopsy is the treatment of choice. As these lesions are associated with a wide variety of benign and malignant pathologies, wide local excision should be done and histopathological examination is mandatory to exclude underlying malignant pathology at the base of horn.

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