

Multiple Penile Horns: Rare and Unusual Case Report

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ABSTRACT

Penile cutaneous horn is a clinical term that describes protruding hyperkeratosis, usually conical in shape, located on glans penis. This lesion is predominantly located on sun-

exposed areas, so its localisation on the glans penis is very rare. Also, this patient presented with multiple horns which is very unusual.

Keywords: Cornu cutaneum, Glans, Malignancy, Penile horn

INTRODUCTION

Penile cutaneous horn (cornu cutaneum) is a clinical term that describes protruding hyperkeratosis with an erythematous base on penile glans. The incidence of the lesion is very low, with only few cases reported in the literature [1]. The disease may be benign in 42%-56%, premalignant in 22%-37%, or frankly malignant in 20%-22% of patients [2].

CASE REPORT

A 40 year-old, daily wage labourer, presented with multiple horns on the glans penis since few years [Table/Fig-1]. His only complaint was cosmetic and mild discomfort during sexual intercourse. There was no history of itching or discharge. No inguinal lymphadenopathy was observed. Excision of the largest horn was done along with removal of the keratinised tissue over corona and another pigmented tissue at one end of the glans. All these specimens were sent for histopathological examination in different containers. Similar histopathological findings were observed in all the tissue bits, which showed marked orthokeratotic type of hyperkeratosis, parakeratosis and acanthosis with prominent granular layer. Basal layer was characterised by sporadically elongated rete ridges with the signs of incipient keratinisation and few mitotic figures. Subepithelial tissue showed foci of lymphoplasmacytic

infiltration and capillaries of different shapes and size lined by endothelial cells. Although there was no focus of malignancy there were a few areas showing squamous atypia. A diagnosis of Pseudoepitheliomatous hyperplasia was signed out [Table/Fig-2]. The patient was put on follow-up for six months and reported no recurrence.

DISCUSSION

Cornu cutaneum refers to a well-defined cone-shaped lesion with hyper-keratotic features. They are seen in sun-exposed areas and their occurrence on the penis is uncommon with only few cases reported in the literature [1]. The disease may be benign in 42%-56%, premalignant in 22%-37%, or frankly malignant in 20%-22% of patients [2]. There has been only one case report of multiple penile horns [3].

The aetiology of penile horns is uncertain, although they are often found in association with warts, phimosis, naevi and in areas afflicted by trauma [4]. Various lesions seen at the base of a cutaneous horn include squamous cell carcinoma, actinic keratosis, keratoacanthoma, Bowen's disease, seborrheic keratosis, basal cell carcinoma, hemangioma, keratotic and micaeous pseudopapillomatous balanitis, Kaposi's sarcoma, sebaceous adenoma and Paget's disease of the female breast [5].

The European Association of Urology (EAU) guidelines on penile cancer report three categories of pre-malignant lesions, each with different probability of developing into SCC (Squamous cell carcinoma) of the penis: lesions sporadically associated with SCC of the penis (cutaneous horn of the penis and bowenoid papulosis); lesions at an intermediate risk of progression to SCC (balanitis xerotica obliterans); and lesions at a high risk of developing into SCC of the penis (penile intraepithelial neoplasia occurring as Bowen's disease or erythroplasia de Queyrat) [6,7]. It has been suggested that penile carcinogenesis follows a bimodal pathway, one associated with human papillomavirus infection and the



[Table/Fig-1]: Photograph showing a well-defined horn (Δ) alongwith other ill-defined lesions ($\uparrow\uparrow$)

[Table/Fig-2]: Photograph showing acanthotic squamous epithelium with marked mononuclear inflammatory infiltrate and thin walled blood vessels in the dermis. (H& E x 40)

other related to non-viral factors such as phimosis, chronic inflammation, and lichen sclerosus. Recently, several studies have indicated that immunohistochemical expression of p16INK4a may be used not only as a marker of high-risk HPV infection, but also for penile epithelial abnormalities and precancerous lesions [6].

Malignant change should be suspected in a rapidly growing lesion. Treatment includes wide surgical excision with careful histological examination to exclude a focus of malignancy. Since about one-third of penile cutaneous horns are associated with underlying malignancy an early excision is advised. If malignancy is present in a penile cutaneous horn, the treatment involves partial penectomy with or without regional lymph node dissection [5]. While preliminary studies with laser are encouraging, partial penectomy remains the gold standard.

CONCLUSION

Cutaneous horns are seen in sun-exposed areas and their occurrence on the penis is uncommon. A careful look into this pathology is important since few of them may turn out to be malignant.

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FINANCIAL OR OTHER COMPETING INTERESTS:

None.

Date of Publishing: Jul 01, 2015