Cutaneous horn of the glans penis

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Abstract

Cutaneous horns present as a rare conical dense hyperkeratotic protrusion above the skin akin to the horn of an animal. They most commonly involve the sun exposed areas of the body and on rare occasion found on the penis. The point of concern is their association with malignancy in approximately 20% cases and upto 33% cases in case of penile horns. Management depends on the benignness of the lesion or its grade based on the depth of adjacent tissue involvement by a premalignant or malignant condition at the base . Hence a proper diagnosis and adequate clearance ensures a recurrence free cure of the condition.

Key Words : Cutaneous horn, penile horn, malignancy

Introduction

Cutaneous horns present as conical, hyperkeratotic dense protrusions above the skin surface like the horn of an animal . It was first described in 1588 in an elderly Welsh woman in London [1]. It represents overgrowth and epithelial cornification with resultant solid protuberance in response to a wide range of underlying benign and malignant pathological changes [2]. They occur usually in the sun exposed skin of face, lip, ear, nose, chest, forearm and dorsal hand . However they can also occur in areas not exposed to sunlight like penis, lower lip mucosa and nasal vestibule [3].The base of the horn can be flat, nodular or crateriform . Malignancy is present at the base of a cutaneous horn in 16-20% of cases and at a higher rate of 33% with penile horns [4], squamous cell carcinoma being the commonest one . The risk factor for malignancy are advanced age, male sex, large base, sun exposure, rapid growth and tenderness at the base.

Predisposing factors in the development of cutaneous horn are poor hygiene, chronic balanoposthetis, post circumcised status, trauma, radiotherapy, viral infections like HPV-16 and molluscum contagiosum and tumor especially squamous cell carcinoma [5]. Benign lesions associated with cutaneous horhs are angioma, angiokeratoma, benign lichenoid keratosis, cutaneous leishmaniosis [6], dermatofibroma, discoid lupus erythematosus , epidermal nevus, epidermolytic acanthoma, fibroma, granular cell tumor, keratotic and micaceous pseudoepitheliomatous balanitis, prurigo nodularis, pyogenic granuloma , sebaceous adenoma, seborrhoeic keratosis and verruca vulgaris . Similarly premalignant and malignant lesions that give rise to cutaneous horns are adenoacanthoma, actinic keratosis , squamous cell carcinoma, basal cell carcinoma [7], Bowen's disease, Kaposi sarcoma , keratoacanthoma , malignant melanoma , Paget's disease and renal cell carcinoma.

Case Report

A 54 year male presented with a progressive, asymptomatic horny growth over the glans penis for 5 years. He had undergone circumcision for chronic balanoposthitis 20 years back. Examination revealed a hard , horn like protruding growth of size 2 cm above the glans and about 1.5cm broad at base , nontender and base is not fixed to the underlying corpora cavernosa or the urethra. Both side inguinal lymph nodes found normal. He had no urinary

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symptoms and blood sugar and other routine tests were normal. Under penile block anaesthesia, the lesion was excised completely with a margin of 5mm from the base and wound closed primarily with a Foley's catheter placed in the urethra. Foley's catheter removed on 5th post operative day and sutures on 8th day. Histopathology revealed acanthosis, hyperkeratosis, parakeratosis, elongated rete ridges, papillomatosis and infiltration of adjacent dermis with chronic inflammatory cells suggestive of a cutaneous horn. He was found recurrence free with an inconspicuous scar at 18 months follow up. [Figures 1, 2, 3 & 4].

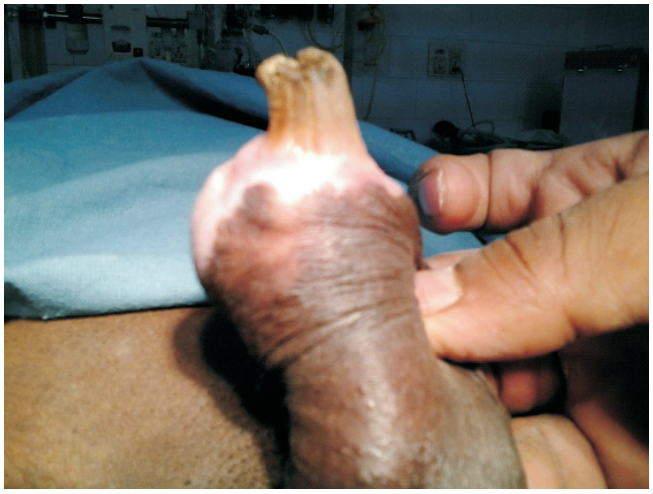

Figure 1. Conical and horny protuberance from glans penis

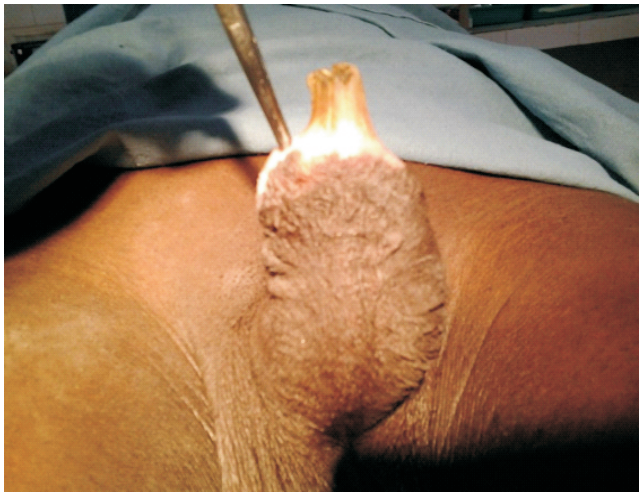

Figure 2. Uninvolved urethral opening shown by an artery forceps

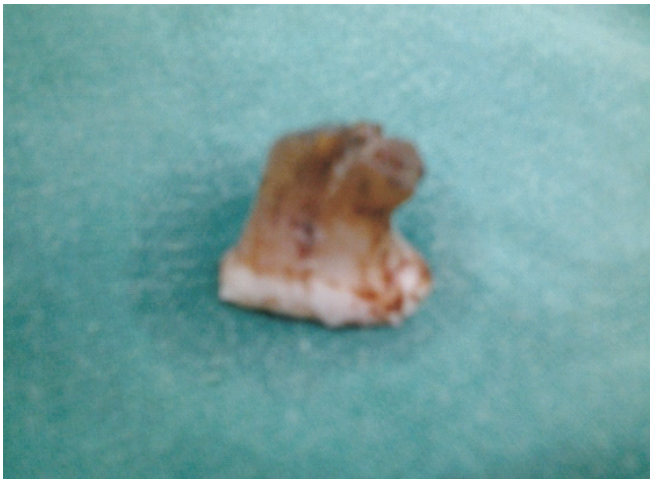

Figure 3. Excised penile horn with 5mm margin all around

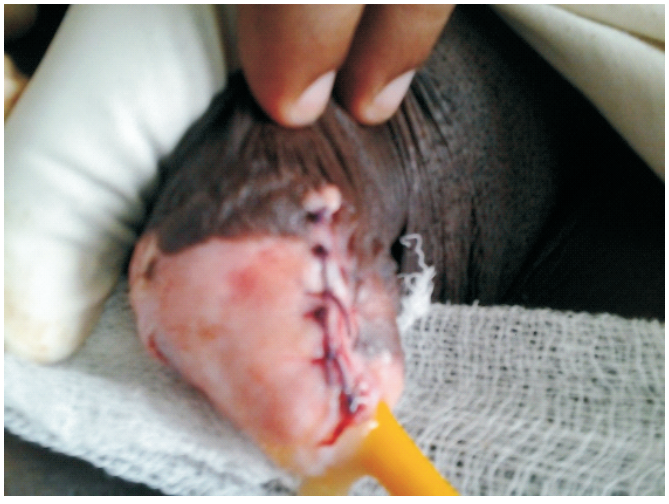

Figure 4. Primary closure with Foley's catheter in situ

Discussion

Cutaneous horns though commonly occur in the sun exposed areas and arise from actinic keratosis, they also rarely occur in non sun exposed parts like penis, lower lip mucosa and vestibule of the nose. The first case of penile horn was described in 1854 and since then fewer than 100 cases have been reported in the literature [8]. Penile horns usually are asymptomatic , conical , hyperkeratotic projections from the glans. They may be associated with or arising on a premalignant or malignant condition in 33% of cases. Management include wide excisional biopsy of the lesion and histopathology to rule out malignancy. Cryosurgical ablation of lesions is the first line treatment for verruca vulgaris, actinic keratosis and molluscum contagiosum . Carbon dioxide and Neodymium YAG LASER is reserved for patients unfit for or refusing surgery [9]. Other treatment options include glansectomy with or without tip amputation or reconstruction, partial amputation of penis or total amputation with perineal urethrostomy depending on site and depth of adjacent tissue involvement or malignancy on histopathology report [10].

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