



CUTANEOUS HORN OVERLYING SQUAMOUS CELL CARCINOMA OCCURRING ON A PSORIATIC PLAQUE – A CASE REPORT

Soorya.B¹, Chinthamani.KPR¹, Jayakar Thomas², Manoharan.D³, Manoharan.K³.

¹Junior Residents, ²Professor and Head of department, ³ Professors, Department of Dermatology.
Sree Balaji Medical College and Bharath University, Chennai 600044, TamilNadu, India.

Corresponding Author: - **Jayakar Thomas**
E-mail: jayakarthomas@gmail.com

<p>Article Info <i>Received 15/01/2016</i> <i>Revised 27/02/2016</i> <i>Accepted 2/04/2016</i></p> <p>Key words: Cutaneous horn, SCC, Psoriasis.</p>	<p>ABSTRACT A cutaneous horn is a hyperkeratotic epidermis with conical projection composed of compact keratin. It is associated with wide range of benign, premalignant and malignant skin diseases. Most common malignant disease associated with cutaneous horn is SCC (squamous cell carcinoma). We report a case of cutaneous horn overlying squamous cell carcinoma on a psoriatic plaque in a 70 year-old male.</p>
--	---

INTRODUCTION

Cutaneous horn is an epidermal tumour and presents as well defined cone shaped projectile nodule with hyperkeratotic features. Cutaneous horns frequently affect older patients, with the peak incidence between 60 to 70 years. The pathogenesis of this abnormal formation of keratinized material is unclear [1]. It is thought to be triggered by UV rays. It usually occurs in sun exposed sites mainly in the face and scalp, but other sites (eyelids, pinna, neck, chest, lower lip, nose, hands and shoulder) can also be involved. Because of its malignant association histopathological examination is important.

CASE REPORT:

A 70 year old male who is a known case of psoriasis vulgaris for past 30 years on irregular treatment came to our skin OPD with complaints of growth over the psoriatic plaque in the left thigh for past 3 years associated with pain and bloody foul smelling discharge. Patient also gives history of itching and loss of weight and appetite. No relevant family history. On dermatological examination, a 7 x 5cm yellowish, hard, proliferative growth, adherent to the underlying structures is seen over the psoriatic plaque in the left thigh [FIG 1]. No palpable lymph nodes. Scalp,

palms and soles were normal. Nail examination revealed pitting, subungual hyperkeratosis and onycholysis in all toe nails and clubbing in all finger nails. Respiratory, cardiovascular, central nervous system and abdominal examinations were normal.

CBC, RFT, LFT, USG abdomen, chest X-ray and ECG done were within normal limits.

Biopsy done from the proliferative growth revealed hyperkeratosis, parakeratosis and absent granular layer. Horn pearls were present. Superficial and deep lymphocytic infiltrates were seen [FIG 2, 3 & 4].

DISCUSSION

Cutaneous horn is otherwise known as Cornu cutaneum in Latin. It is an elongated keratinous nodule with conical projection consisting of compacted keratin resembling the animal horn. An animal horn is composed of superficial hyperkeratosis in epidermis with central bone in dermis unlike a human cutaneous sebaceous horn which is composed of cornified epithelial cells [2]. Cornu cutaneum are classified into four types: Sebaceous horns, nail horns, wart horns and cicatrix horns [3]. Sebaceous horns usually arise from the sebaceous cyst of scalp. Nail



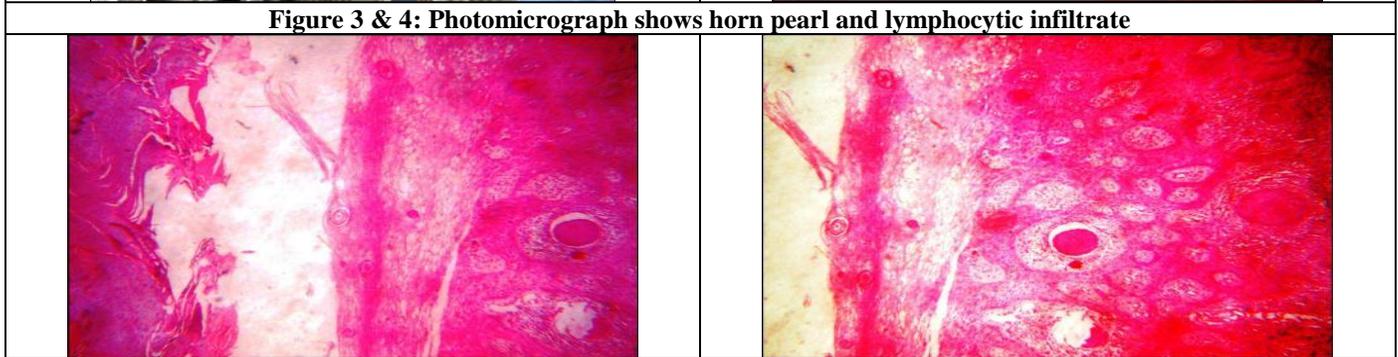
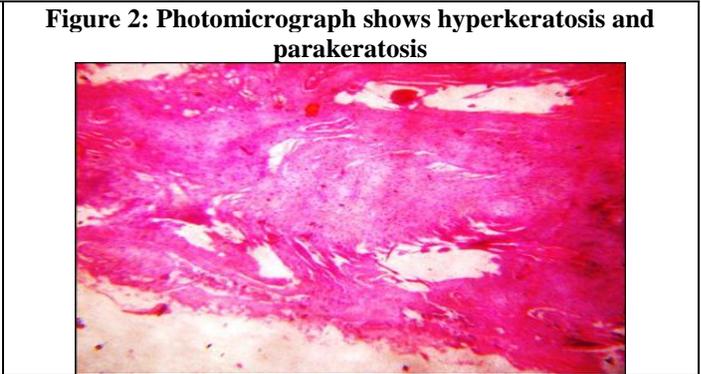
horns grow from big toenail of poorly monitored patients. Wart horns resemble sebaceous horns and arise from chest or penis. Cicatrix horns are rare and grow from post burn scars. They are relatively common among Caucasians [4]. Men are affected more frequently than women. Cutaneous horns most often occur in sun-exposed parts and are typically found in 30% of cases on the face and scalp, but may also occur on the pinna, nose, mucosal lower lip, eyelids, neck, hands, shoulder, chest and penis. 20-22% of penile cutaneous horn is associated with malignancy [5]. Elderly, trauma, burns and fair complexion are predisposing factors. It presents as hard, white to yellowish brown papules or plaques often curved ranging from 2 to 60mm in size (but can be up to several centimetres) with circumferential ridges which are surrounded by normal epidermis or by an acanthotic collarette. The base of the horn may be crateriform, nodular, or flat. Height of the horn is at least double the largest diameter. They are commonly single, but may be multiple. Cornu cutaneum is associated with wide range of benign, premalignant and malignant skin diseases.

Benign conditions that form cutaneous horn include seborrheic keratosis, actinic keratosis, viral wart, molluscum contagiosum, inverted follicular keratosis, keratoacanthoma, histiocytoma and verrucous epidermal nevus. Premalignant conditions are solar keratosis, Bowen's disease and arsenical keratosis. Malignant conditions are SCC, basal cell carcinoma, Kaposi sarcoma, metastatic renal carcinoma, Merkel cell carcinoma, granular cell tumour, malignant melanoma and sebaceous carcinoma [6].

SCC is the most commonly associated malignant disease. The risk factor for associated malignant diseases are the height to base ratio, pain, large size, presence of erythema (increased blood perfusion) and induration at the base of the horn and horizontal terrace morphology on the horn (compact orthohyperkeratosis) [7]. Histopathology reveals hyperkeratosis and parakeratosis associated with variable acanthosis. The base of the horn shows characteristic changes of the associated pathological lesion. Treatment is complete excision of the lesion and reconstruction.

Squamous cell carcinoma is an epidermal keratinocyte tumor. Patients with psoriasis treated with topical coal tar, PUVA, arsenic and systemic immunosuppressants (cyclosporine & methotrexate) and TNF α inhibitors (etanercept & infliximab) are at increased risk of developing non melanoma skin cancer (NMSC) and lymphoproliferative disorders [8]. SCC is the most common NMSC occurring in psoriasis, second common NMSC in psoriasis is basal cell carcinoma [9]. SCC commonly affects the sun exposed areas and arises from cutaneous horn and premalignant lesions (Bowen's disease, leukoplakia and actinic keratosis).

Diagnosis is confirmed by histopathological examination which shows tumor mass consisting of normal and atypical cells proliferating downward into the dermis and horn pearls. Treatment of SCC involves a multidisciplinary approach. Topical 5-fluorouracil and imiquimoid, systemic retinoids, cryotherapy, radiotherapy, laser therapy, and surgical excision are some of the modalities of management.



CONCLUSION

Cutaneous horns are commonly benign lesions but because of its association with malignancies, complete excision of the lesion and histopathological diagnosis is mandatory.

ACKNOWLEDGEMENT: NONE

CONFLICT OF INTEREST: NONE

STATEMENT OF HUMAN AND ANIMAL RIGHTS

All procedures performed in human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

REFERENCES

1. Pragma A Nair, Arvind H Chaudhary and Malay J Mehta. (2013). Actinic keratosis underlying cutaneous horn at an unusual site-a case report. *E Cancer Medical Science*, 7, 376.
2. Eray Copcu, Nazan Sivrioglu and Nil Culhaci. (2004). Cutaneous horns, are these lesions as innocent as they seem to be? *World Journal of Surgical Oncology*, 2, 18.
3. Padmini HR, Pandey N. (2015). Eyelid Cutaneous Sebaceous Horn, A Rare and Interesting Case Report. *International Journal of Scientific Study*, 3(3), 134-136.
4. Peter M Nthumba. (2007). Giant cutaneous horn in an African woman, a case report. *Journal of Medical Case Reports*, 1, 170.
5. Ivica Mokos, Zrinka Bukvić Mokos, Suzana Ljubojević, Marijana Ćorić, Magdalena Grce, Michal Michal. (2012). Penile Cutaneous Horn Ten Years after Treatment of Verrucous Squamous Cell Carcinoma on Penile Glans, Case Report. *Acta Dermatovenerologica Croatica*, 20(1), 30- 33
6. Sanjay Saraf. (2007). Sebaceous Horn, an Interesting Case. *Indian J Dermatol*, 52(1), 59-60.
7. John Pyne, Devendra Sapkota and Jian Cheng Wong. (2013). Cutaneous horns, clues to invasive squamous cell carcinoma being present in the horn base. *Dermatol Pract Concept*, 3(2), 3-7.
8. Manoharan.D, Soorya.B, Swetha.P, Manoharan.K, Thomas J. (2016). Squamous Cell Carcinoma arising from a Psoriatic Plaque– a case report. *International Journal of Dermatopathology and Surgery*, 2(1), 24-26.
9. Thomas J, Chinthamani.KPR, Soorya.B and Manoharan D. (2015). Basal Cell Carcinoma Arising from a Psoriatic Plaque – a rare case report. *International Journal of Advances in Case Reports*, 2(20), 1210-1212.

