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Case Report

Giant Cutaneous Horn on the Forefinger: Case Report

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Abstract: Cutaneous horns are uncommon cornified hyperkeratotic lesions on the skin, of variable size and forms; These lesions occur in photo-exposed areas; 60% of these lesions are benign, however they can be part of a spectrum of premalignant or malignant lesions. Herewith we report a case of an elderly patient with a cutaneous horn on the upper extremity that received surgical treatment.

Keywords: Cutaneous Horn, Cornu Cutaneum, Hyperkeratosis, Actinic Keratoses, Carcinoma, Squamous Cell, Seborrheic Keratosis.

INTRODUCTION

The cutaneous horns (cornu cutaneum) are cornified hyperkeratotic projections from the skin [1, 2], consisting of keratotic material resembling of an animal horn [2], most commonly occurs in photo-exposed areas of the body (particularly on the scalp, face, ear, nose, forearms and dorsum of hands) [2, 3]. Cutaneous horn may arise from a wide range of epidermal lesions, which may be benign in up to 61% of cases, premalignant in 23% of cases and malignant in 16 % of cases [2-4]. Herein we report an elderly patient with a cutaneous horn on the forefinger.

CASE PRESENTATION

A 54-year-old man with a history of type 2 diabetes, systemic arterial hypertension, and chronic kidney disease under substitution therapy; Partial traumatic amputation of the distal phalanx of the forefinger of the right hand 20 years ago, without receiving treatment. Admitted to internal medicine service for community-acquired pneumonia and dialysis therapy dysfunction. Dermatological examination revealed localized dermatosis on distal phalanx of the second finger of the right hand, consisting of a keratotic neoformation, firm and hard consistency, with a length of 6 cm, a diameter at its base of 5 mm, and 8 mm at the distal end, coniform, with a hyperkeratotic appearance, yellowish color, and absence of the nail bed, the base of the lesion in the union with the rest of the phalanx showed a pale pink coloration, rest of the skin was xerotic. Excisional biopsy was performed and histophatological report showing discrete orthokeratosis and acanthosis of the epidermal ridges.

Figure 1: (A, B) Neoformation coniform, with a hyperkeratotic appearance, yellowish color, and absence of the nail bed

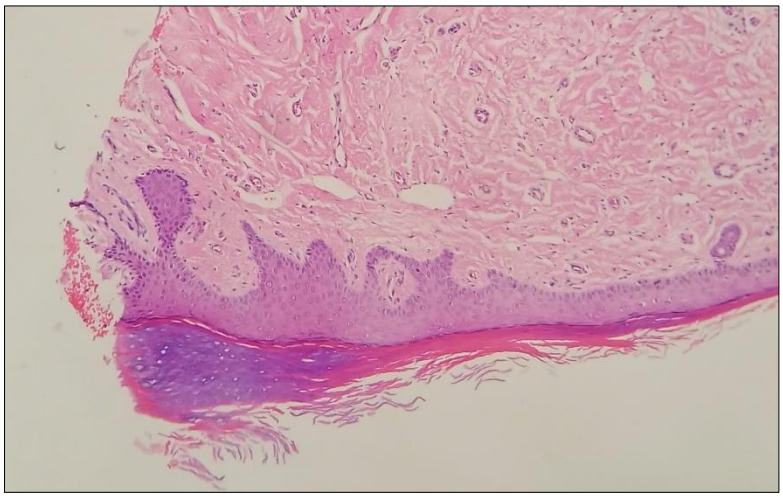

Figure 2. HyE (20x) Histopathology showing discrete orthokeratosis and acanthosis of the epidermal ridges. Dermis showed no inflammatory or abnormal cells

DISCUSSION

Cutaneous horns are cutaneous projections consisting of densely compacted keratin [4, 5]. They may range in size from a few millimeters to several centimeters, can be variable in size and shape (cylindrical, conical, pointed, transversely or longitudinally, corrugated or curved) [2-4]. The diagnosis of cutaneous horn is the clinical term used to describe a hyperkeratotic, conical, yellowish, brownish protuberance on the surface of a mucosa and/or skin. It is properly defined as a tumor lesion characterized by greater hyperproliferation and greater keratin cohesion, secondary to unknown mechanisms [6]. All human cutaneous horns are pathologic in nature and require a diagnostic biopsy [7]. They occur mainly in individuals who are above 50 years of age, probably due to a major actinic and neoplastic degeneration occurring in elderly people [2].

These horns may arise from a variety of benign, premalignant or malignant epidermal lesions. Most commonly, they are single and arise from a seborrheic keratosis lesion [8]. The pathogenesis of cutaneous horn is not fully understood [4]. To date, we did not find a classification of the lenght or size of cutaneous horn; Risk factors associated with underlying malignancy include advanced age, male sex, rapid development, prior history of trauma, presence of hardness at the base, large base or height-to-base ratio, and location in sun-exposed areas or sites of chronic irritation of the body such as scalp, face, pinna, nose, forearm and dorsal aspect of the forearm [9,10]. There are a few cases described of cutaneous horn on the hand; Midya *et al*., described a giant cutaneous horn on the thumb that showed underlying seborrheic kerastosis at the

base; Pragya *et al.*, reported a cutaneous horn in the palmar aspect of the middle phalanx of the middle finger, histopathological exam demonstrated actinic [11]. The important consideration in these cases is not the horn but the underlying pathology which may be benign (seborrheic keratosis, viral warts, histiocytoma, inverted follicular keratosis, verrucous epidermal nevus, molluscum contagiosum, etc.), premalignant (solar keratosis, arsenical keratosis, Bowen's disease) or malignant (squamous cell carcinoma, less frequently basal cell carcinoma, metastatic renal carcinoma, granular cell tumor, sebaceous carcinoma or Kaposi's sarcoma) [5-9]. Gould and Brodell have reported a giant cutaneous horn associated with verruca vulgaris. Solvian *et al*., reported a cutaneous horn of the penis associated with squamous cell carcinoma and HPV 16 infection [5]. Treatment options include wide surgical excision, laser treatment, and electrocautery [1-5]. Laser therapy with carbon dioxide or neodymium: yttrium-aluminum-garnet laser has the least scarring with more cosmetic results [1]. Wide surgical excision with adequate uninvolved margins and perhaps frozen section may be done to avoid further surgical intervention. If malignancy is diagnosed, lymph nodes draining the site must be evaluated to rule out metastasis [4]. Complementary studies for diagnosis infiltration when there is uncertainty about infiltration are axial tomography or magnetic resonance imaging [1].

CONCLUSION

Cutaneous horn is a keratinized protrusion above the skin, which mostly occurs on the face and scalp. Histological examination should be done carefully; the possibility of nearly one-third of them harboring malignant or premalignant skin lesions should be borne in mind.

Conflict of Interest: The authors declare that there are no conflicts of interest at the time of publication of this article.

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