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Case Report Open Access

Giant Cutaneous Horn in Afro-Brazilian Descendent Patient: Case Report and Literature Review

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Abstract

Cutaneous horn is the clinical diagnosis of hyperproliferation of compact keratin in the epidermis. It is presented as a conical projection of hyperkeratotic skin, often yellowish, which can be straight, curved or twisted and occurs in response to benign or malignant structural changes in the skin. Found most frequently in Caucasian, its giant clinical form is less common, especially in African-descendent patients. We report the case of a giant cutaneous horn in a female, 41 years old, Afro-Brazilian descendent patient, who has arrived at the dermatology ambulatory with a horn-like tumor located in the right parietal scalp with two years of evolution. She underwent to the surgical resection with a safety margin of 0.5cm and partial approximation of the skin flaps to allow healing by secondary intention. Histopathology has shown a completed excised lesion, diagnosed as cutaneous horn, over an area of well-differentiated squamous cell carcinoma. The patient has an uneventful recovery. A review of literature about the issue was undertaken and aspects of its epidemiology, associated disease, biologic behavior and treatment are discussed.

Keywords: Cutaneous; Horn; Giant; African

Introduction

The cutaneous horn clinically presented as a conical dense hyperkeratotic projection of skin that can appear in any part of the body. Most commonly are located in exposed areas to actinic radiation or burns, such as face and scalp, which represents 30% of the cases. Histologically composed of concentric layers of keratinized epithelial cells, the illness usually develop in an area with benign (65%), premalignant (15%) or malignant (15%) disease; being the squamous cell carcinoma the most common malignancy [1].

The following cutaneous diseases have already been described in association with cutaneous horn: sebaceous molluscum, verruca, trichiemma, Bowen`s disease, squamous cell carcinoma, malignant carcinoma and basal cells carcinoma [2]. Usually yellowish, its size can vary from a few millimeters to several centimeters, and its format can be straight, curved or twisted [3]. Once not common in African-descendents, this study reports the second case of giant cutaneous horn in a patient of this ethnic group.

Case Report

Afro-Brazilian descendent female patient, 41 years old, has arrived at the dermatology ambulatory with a horn-like tumor located in the right parietal scalp with two years of evolution (Figure 1). There was a history of repeated micro traumas in the affected region caused by the own patient. The physical examination has shown the presence of a conical hyperkeratotic projection measuring 6.0x4.0x3.1 cm, located in the right parietal region, with vegetative lesion bypassing the base. There are not any cervical lymph node metastases, the oropharinx examination and the chest radiogram was normal. The patient underwent to the surgical resection with a safety margin of 0.5cm and partial approximation of the skin flaps to allow healing by secondary intention. Histopathology showed a completed excised lesion, diagnosed as cutaneous horn, over an area of well-differentiated squamous cell carcinoma. The patient has an uneventful recovery and has never returned for follow-up.

Figure 1: Giant cutaneous horn in Brazilian afro-descendent patient measuring 6,0x4,0x3,1 cm, located in the right parietal region in association with a vegetative lesion bypassing the base.

Discussion

The cutaneous horn was first described in the patient Margaret Gryffith, elderly English, in London in 1588. Since then, numerous

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Eletronic Database	Search strategies	Results Found	Related
PubMed	Horns AND African	25	1
Scopus	Horns AND African	53	1
Scielo	Horns AND African	02	0

*Performed on September 04, 2011.

Table 1: Literature review*. Scalp giant horn in Brazilian African descendent woman: case report.

cases have been diagnosed among Caucasians in Europe [4]. The rarity of this condition is noted in patients of other races and regions, as evidenced by the low number of citations in the literature. Besides, there is also difficulty in finding a cutaneous horn larger than 1 cm, given that usually surgeons remove them earlier [5]. A systematic literature review was undertaken using the key-words (Horn AND African) in the three important Electronic Data Basis [Pub Med (25 citations), Scopus (53 citations) Scielo (2 citation)]. Only one similar article and four others one related were found out and were used in the present review (Table 1).

The first case of giant cutaneous horn in an African-descendent woman was described by Peter Nthumba in 2007 [3]. In its report the histopathology showed vitiligo and verrucous epidermal hyperplasia, at the base of the horn as the risk factors of disease development, therefore both of them benign disease. In contrast, our case report shows a malignant disease (well–differentiated squamous cell carcinoma). It is worth of note that the persistent finger nail micro trauma, caused by the own patient on the disease site, may have contributed to local cellular derangements and neoplastic transformation.

Four main epidemiologic factors are associated with premalignant or malignant histopathological changes on the basis of a cutaneous horn: patient age, sex, location and geometry of the lesion. Men, sun exposure areas, lesions with a wide base or a small height-to-baseline relation are more likely to develop a cutaneous horn with underlying malignant changes [5].

The cutaneous horn should be considered a premalignant condition, once the chance of development of this lesion in a malignant base is 40%, and should belong to the differential diagnosis of skin cancer [3]. Optimal treatment consists of complete excision and histopathological study. The surgeon must ensure that the disease has been completely removed with a safety margin to avoid relapse. The homolateral lymph node basin must be carefully examined and any suspicious lymph node biopsied to certify the absence of metastatic disease [1].

In conclusion, giant cutaneous horn is a very rare disease especially in African-descendent; it may be associated with several others benign and malignant diseases being the squamous cell carcinoma the most important one. The article also alerts us to the fact that the all cutaneous horn, regardless its size, should belong to the differential diagnosis of skin cancer and appropriately managed.

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