A Huge Cutaneous Horn of Ear

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Abstract

A rare case of huge cutaneous horn of the ear was presented. The lesion was totally excised over the auricular cartilage with a 5-mm margin and the defect was closed with a full-thickness skin graft taken from the preauricular area. To the best of our knowledge, there is no any report of this kind of interesting cutaneous corn of the ear.

Keywords

► cutaneous horn  ► ear  ► surgery

The term cutaneous horn has been used to describe dense, hyperkeratotic protrusion on the skin surface that resembles the horn of an animal. It may be straight, curved, conical, cylindrical, or spiral; single or multiple; arising from the superficial layers of the skin or implanted deeply in the cutis, and may vary from a few millimeters to several centimeters in length. Most of the lesions are seen over the sun-exposed skin surface, especially on the head and neck.

Case

A 70-year-old man admitted to our clinic with a giant lesion on his ear that has been present for 2 years (►Fig. 1). The lesion had grown progressively and had covered the middle part of his left ear. It was painless and the patient reported no history of trauma or any other systemic disease. No cervical, submandibular, or supraclavicular nodes were found on palpation. The lesion was totally excised over the auricular cartilage with a 5-mm margin and the defect was closed with a full-thickness skin graft taken from the preauricular region. No complication was observed postoperatively. Histopathological examination revealed irregular acanthosis and marked hyperkeratosis. There was sparse chronic inflammatory cells infiltration in the dermis and there was no dysplasia or malignancy in the epidermis (►Fig. 2).

Discussion

The exact cause of the cutaneous horn is unknown but certain epidemiologic patterns and associations regarding the condition have been defined. The lesions are much more commonly described in individuals older than 60 years and in European whites. Solar radiation may be a key factor in the development of the lesion as they mostly occur on the ears, scalp, eyelids, lips, nose, neck, shoulders, and dorsum of the hand. In addition, Wang et al identified human papilloma virus (HPV-2) in the biopsies of multiple cases of cutaneous horns.

Although cornu cutaneum is a benign lesion and most commonly arises from a seborrheic keratosis, the condition at the base of the horn is very important, and may be benign (seborrheic keratosis, viral warts, histiocytoma, inverted follicular keratosis, verrucous epidermal nevus, and molluscum contagiosum), premalignant (solar keratosis, arsenical keratosis, and Bowen disease), or malignant (squamous cell carcinoma, basal cell carcinoma, metastatic renal carcinoma, granular cell tumor, sebaceous carcinoma, or Kaposi sarcoma).

Yue et al reported the largest study of 643 cutaneous horns. Sixty-one percent of the lesions were derived from benign lesions, while 39% were derived from premalignant or benign lesions. Especially giant horns with a wide base and low height-to-base ratio are considered to be commonly...
derived from premalignant or malignant base. In addition, malignancy should come to mind in older age (\(\geq 70\) years), male sex, body areas (nose, pinnae, scalp, back of the hands, face, and penis), a history of trauma leading to an inflammation of the horn’s base.

Surgical excision is the standard of care. Although most cutaneous horns are benign, excision should include a 3 to 5 mm margin due to the malignant potential. Lesions less than 2 cm can usually be closed primarily, but larger lesions may require grafting.

In this patient, there was no history of trauma, the height of the horn was greater than its base, and macroscopically there was no inflammation at the base of the lesion; however, surgical excision was planned with a 5 mm margin due to the potential risk of malignancy.

Most of the reported giant cutaneous horns were located on the scalp. Michal et al. reported four gigantic cutaneous horns of the scalp. Their length ranged from 17 to 25 cm, and the width was up to 2.5 cm. All four lesions showed similar benign histologic changes, consisted of a mixture of squamous epithelial cells, and trichilemmal keratinized debris. In one case, the base of the horn was directly connected with a mass composed of benign trichilemmal cysts of the scalp.

In our case, there was no dysplasia or malignancy histologically, and to the best of our knowledge, there is no report of this kind of a huge cutaneous horn of the ear.