A giant cutaneous horn on the eyebrow

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INTRODUCTION

Cutaneous horns were first reported in London in 1588.1 Unlike a true animal horn that has a bony core, a cutaneous horn is a conical projection made up of cornified material. The length of this lesion varies from a few millimeters to 38 cm in some reported cases.2 Cutaneous horns are usually skin colored or erythematous, and they may present as white with a fine scale.3 Approximately 30% of cutaneous horns appear in sun-exposed areas, such as upper face and scalp.1 However, chronic irritation can also give rise to cutaneous horns on other areas of the body, even on the penis.4 People ages 50 to 89 years are the group most affected.5 Cutaneous horns are a morphologic designation rather than a pathologic diagnosis, and they can be derived from many benign or malignant diseases, such as seborrheic keratoses, basal cell carcinoma, and squamous cell carcinoma (SCC).

CASE REPORT

An 86-year-old woman presented to our department with a giant cutaneous horn on her left eyebrow. Ten years previously, the patient noticed a red plaque initially as large as a peanut on her left eyebrow. During the time the cutaneous horn developed, no itching, ulceration, or pain was present. In October 2006, the patient had the horn surgically excised. However, 6 months later, the lesion recurred with ulceration and exudation. The patient was a farmer by occupation, and no significant family history was present.

Physical examination found a large exophytic keratotic conical lesion 10 cm in length with a base diameter of 6 cm on her left eyebrow. The protrusion was gray-black in color and was hard and immobile with a curved, horny appearance. The surface of the horn was rough from the apex to the base. At the bottom of this lesion there was an erythematous patch with ulceration and exudation (Fig 1). There was no regional lymphadenopathy. Routine blood investigations, urine examination, electrocardiogram, and chest radiography were normal. Computed tomography scan of the skull showed no evidence of calcification or underlying bony involvement (Fig 2).

An excision to the superficial fascia, with a margin of 0.3 cm was performed, and the primary defect was closed with a skin graft. The intraoperative frozen section of the lesion reported SCC with clear surgical margins. Histopathologic examination after the operation confirmed it to be a SCC with a cutaneous horn (Fig 3). At the 6 month postoperative follow-up examination, the patient healed completely with acceptable scarring and recovery of full function (Fig 4). As of this writing, she is in good physical health without recurrence. She is still in follow-up.

DISCUSSION

Cutaneous horns occur commonly in light-skinned individuals older than 50 years, and are frequently seen in men.6 This lesion has a variety of presentations and locations but is most frequently found in areas that have had solar exposure and damage.7 They can also arise in sun-protected areas, such as penis and groin. The cause of this lesion is still unknown. Radiation, chronic irritation, and even human papillomavirus—2 infection may be the precipitating factors of such a disease.8 Because cutaneous horns are a morphologic designation, to make a histologic diagnosis, it should be biopsied at the base.
Cutaneous horns commonly hide many underlying diseases, such as actinic keratosis, SCCs, verruca vulgaris, seborrheic keratosis, molluscum contagiosum, Kaposi’s sarcoma, and lentigo malignant melanoma, so they can be divided into 3 types based on histopathology: benign, premalignant, and malignant. According to an investigation of 222 cutaneous horns from 1990 to 2006, 58.56% of the lesions originated from malignant or premalignant lesions compared with the base of the horn. Cutaneous horns commonly hide many underlying diseases, such as actinic keratosis, SCCs, verruca vulgaris, seborrheic keratosis, molluscum contagiosum, Kaposi's sarcoma, and lentigo malignant melanoma, so they can be

Fig 1. The patient with a giant cutaneous horn on her left eyebrow. A, Frontal view of the lesion. B, Left-side view of the lesion. C, Right-side view of the lesion.

Fig 2. Computed tomography scan shows no evidence of calcification or underlying bony involvement.

Fig 3. Histopathologic examination shows prominent columnar hyperkeratosis and parakeratosis. The tumor is composed of atypical squamous epithelial cells extending into the dermis from the epidermis. A, Low magnification. B, High magnification. (Hematoxylin-eosin stain.)
41.44% from benign lesions. Sex, age, site, and size are the main factors associated with the morbidity of this lesion.5

Such a large cutaneous horn on the patient’s left eyebrow with such a long history is rare. According to a retrospective study, it was observed that the longer time to develop the disease and the bigger its base, the higher the risk of the lesion being pre-malignant or malignant.4 Although the advancement of medical care in China is very rapid, in some remote areas many patients do not have access to dermatologic consultation and cannot receive adequate treatment from the local clinic because of the clinic’s limited medical capabilities. Attention should be paid to such similar incidents during the development of China’s medical and health care system.

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