

Facial lesion that came “out of nowhere”

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A 33-year-old woman had a facial lesion (Figures 1 and 2) that seemed to “come out of nowhere,” but it was months before she sought medical attention. She was certain that the duration was months, not years, but could not date the exact onset.

The lesion was asymptomatic except for its prominence and aesthetics. The patient had tried cutting the lesion off several times, but it regrew each time. She was married, mono-

gamous by history, not pregnant, had no major underlying medical conditions, and had no personal or family history of skin malignancy. The remainder of the skin examination was normal.

■ WHAT IS YOUR DIAGNOSIS?

■ WHAT WOULD BE YOUR MANAGEMENT PLAN?

FIGURE 1 Facial lesion with sudden onset



This lesion on the patient's cheek appeared over a period of months.

FIGURE 2 Detail of the lesion



Except for its prominence on the patient's face, the lesion is asymptomatic.

■ DIAGNOSIS: CUTANEOUS HORN

Cutaneous horn, also referred to as *cornu cutaneum*, is a clinical (morphologic) diagnosis, not a precise pathologic diagnosis. It describes an asymptomatic, projectile, conical, dense, hyperkeratotic lesion that resembles the horn of an animal.

Cutaneous horns can arise from a variety of primary underlying pathologic processes, including benign, premalignant, and malignant lesions. Thus, the important issue when confronted with a cutaneous horn is determining the causative pathologic process. Therefore, for treatment, most authors stress surgical excision with attention to removing the base of the specimen for histopathologic examination.¹⁻⁴

Cutaneous horns may vary considerably in size and shape. Most are a few millimeters in length, but there are reports of some measuring up to 6 cm in length. They may be perpendicular or inclined in relation to the underlying skin. They usually occur singly and may grow slowly over decades.^{2,4}

Cutaneous horns are more common in older and white individuals, although they have been reported in children and African Americans.⁵ The higher prevalence in older and light-skinned individuals is secondary to the fact that many cutaneous horns are caused by cumulative sun damage over many years, leading to actinic keratoses and nonmelanoma skin cancer.

Differential diagnosis

The differential diagnosis of the underlying causes of cutaneous horns is extensive. Some causes are listed in the **Table**; common ones include actinic keratoses (25%–35% of patients with cutaneous horns), verruca vulgaris (15%–25%), and cutaneous malignancies (15%–40%).¹

Features that have been reported to increase the chance of an underlying malignancy include older age, male sex, lesion geometry (either a large base or a large height-to-base ratio), and

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TABLE
Some causes of cutaneous horn

Benign—noninfectious
Angiokeratoma
Angioma
Dermatofibroma
Epidermal inclusion cyst (“sebaceous cyst”)
Linear verrucous epidermal nevus
Fibroma
Lichen simplex chronicus (“neurodermatitis”)
Lichenoid keratosis
Prurigo nodularis
Pyogenic granuloma
Sebaceous adenoma
Seborrheic keratosis
Trichilemma
Benign—infectious
Condyloma acuminata (genital warts)
Molluscum contagiosum
Verruca vulgaris (common wart)
Premalignant/malignant
Actinic keratosis
Basal cell carcinoma
Bowen’s disease
Epidermoid carcinoma
Kaposi’s sarcoma
Keratoacanthoma
Malignant melanoma
Squamous cell carcinoma
Sources: Gould and Brodell 1999, ¹ Akan et al 2001, ⁶ Khaitan 1999. ⁹

presence on a sun-exposed location (face, pinnae, dorsal hands and forearms, scalp). More than 70% of cutaneous horns with underlying premalignant or malignant lesions are found on these

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sun-exposed areas.^{3,6} Additionally, cutaneous horns on these locations are twice as likely to harbor underlying premalignant or malignant lesions.⁶ Of patients with malignancies underlying their cutaneous horns, up to one third have a history of skin malignancy.⁷

■ TREATMENT OPTIONS

Cryosurgery

Some textbooks list cryosurgical therapy as an option.⁸ If there were a clearly benign pre-existing underlying dermopathy, such as verruca vulgaris or molluscum contagiosum, cryosurgery might be considered. However, cryosurgery is destructive; it does not preserve a specimen for pathologic examination. Because cutaneous horns have a 15% to 40% chance of underlying malignancy,^{1,4} it is difficult to recommend cryosurgical destruction without an initial biopsy-proven diagnosis.

Punch biopsy

In this patient, a 3-mm excisional punch biopsy was performed using a punch-to-ellipse technique. The skin is stretched parallel to the skin lines as the punch biopsy is performed. As the skin relaxes after removal of the punch instrument, an elliptical defect remains, enhancing cosmesis of the repair. Especially for a convex facial surface (which heals less well cosmetically than concave facial surfaces), this technique was believed to offer the potential for a better long-term cosmetic result.

In this case, a shave biopsy would have been a good option for both diagnosis and treatment. If the pathology from a punch biopsy or shave biopsy turned out to demonstrate an underlying skin cancer, then a fusiform excision would be needed to provide adequate surgical margins for the definitive treatment.

■ RESULTS OF HISTOLOGIC EXAM

With this patient, histologic examination revealed that the underlying condition was verruca vulgaris, or the common wart. Several months after removal of the cutaneous horn, the

FIGURE 3 After successful treatment



After removal of the cutaneous horn, the surgical site could not be seen.

patient could not locate the surgical site, a cosmetically acceptable result to her and her physician (**Figure 3**).

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