To the Editor:
A 53-year-old woman presented to our dermatology clinic with a painful growth on the right ear of 2 months’ duration. A complete review of systems was negative except for an isolated episode of shortness of breath prior to presentation that resolved without intervention. During this episode, her primary care physician made a diagnosis of chronic obstructive pulmonary disease based on a chest radiograph. The patient reported minimal tobacco use, specifically that she had smoked a few cigarettes daily for several years but had quit 6 months prior to the current presentation.

Physical examination at our clinic revealed a tender, hyperkeratotic, cone-shaped papule with mild erythema on the right antitragus that was consistent with a cutaneous horn (Figure 1). Although she denied any other skin lesions, further evaluation revealed a cluster of firm flesh-colored papules surrounding the left medial canthus as well as a pink scaly plaque on the posterior neck.

Histopathology of the cutaneous horn demonstrated a mound of hyperkeratosis with noncaseating granulomas within the superficial dermis (Figure 2). A biopsy of the plaque on the neck demonstrated similar granulomas. Fungal and mycobacterial stains were negative, supporting a diagnosis of cutaneous sarcoidosis. At a follow-up visit 18 days later, laboratory workup for sarcoidosis revealed a normal calcium level (9.6 mg/dL [reference range, 8.7–10.4 mg/dL]) and elevated angiotensin converting enzyme level (139 U/L [reference range, 8–53 U/L]).

Cutaneous horn is a clinical term used to describe hyperkeratotic horn-shaped growths of highly variable shapes and sizes. Although the pathogenesis and incidence of cutaneous horns remain unknown, these lesions most often are the result of a neoplastic rather than an inflammatory process. The differential diagnosis typically includes entities characterized by marked hyperkeratosis, including hypertrophic actinic keratosis, squamous cell carcinoma (SCC), seborrheic keratosis, and verruca.

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The authors report no conflict of interest.

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FIGURE 1. A cutaneous horn on a mildly erythematous base located on the right antitragus. The horn was wider than it was tall, as the base of the horn extended posteriorly into the conchal bowl.
vulgaris. The base of the horn must be biopsied to determine the underlying etiology, paying careful attention to avoid a superficial biopsy, as it may be nondiagnostic.

Studies analyzing the underlying diagnoses and clinical features of cutaneous horns are limited. In a large retrospective study of 643 cutaneous horns, 61% were benign, 23% were premalignant, and 16% were malignant. In this study, 4 features were associated with premalignant or malignant pathology: (1) older age (mid-60s to 70s); (2) male sex; (3) location on the nose, pinnae, dorsal hands, scalp, forearms, or face; and (4) a wide base (4.4 mm or larger) and a lower height-to-base ratio than benign lesions.1 Two additional studies of more than 200 horns each showed higher rates of premalignant horns (42% and 38%, respectively) with malignancy found in 7% and 20% of horns, respectively.2,3 One prospective study sought to identify clinical and dermatoscopic features of SCCs underlying cutaneous horns, concluding that SCC diagnosis was more likely if a horn had (1) a height less than the diameter of its base, (2) a lack of terrace morphology (a dermatoscopic feature defined as horizontal parallel layers of keratin), (3) erythema at the base, and (4) the presence of pain.4

Our patient had a cutaneous horn on the pinna that was painful, wider than it was tall, and erythematous at the base, suggesting a malignant process; however, a complete cutaneous physical examination revealed other skin lesions that were concerning for sarcoidosis and raised suspicion that the horn also was a manifestation of the same inflammatory process.

Although unusual, cutaneous sarcoidosis presenting as a cutaneous horn is not unexpected. In a histopathologic study of 62 cases of cutaneous sarcoidosis, 79% (49/62) showed epidermal changes and 13% (8/62) demonstrated hyperkeratosis. Other epidermal changes included parakeratosis (16% [10/62]), acanthosis (10% [6/62]), and epidermal atrophy (57% [35/62]).5 The spectrum of epidermal pathology in cutaneous sarcoidosis is evident in its well-documented verrucous, psoriasiform, and ichthyosiform presentations. For completeness, cutaneous horn is added to the list of clinical morphologies for this “great imitator” of cutaneous diseases.

REFERENCES