















## Causes

Malignant lesions at the base of the horn usually are squamous cell carcinoma, although basal cell carcinoma has been rarely reported. These are predominately precipitated by ultraviolet radiation. Rare tumors at the base include Paget disease of the breast, sebaceous adenoma, and granular cell tumor. The premalignant lesion, actinic keratosis, is a frequent finding at the base. The human papilloma virus most frequently causes infectious etiology resulting in a verruca vulgaris.<sup>14</sup> Molluscum contagiosum of the poxvirus group occasionally has formed a cutaneous horn. The only other infectious cause has been leishmaniasis.

Benign idiopathic causes are frequent and include seborrheic keratosis, epidermal nevus, trichilemmal cyst, trichilemmoma, prurigo nodule, and intradermal nevus

Diagnosis is confirmed with a skin biopsy. An adequate specimen usually can be obtained with a simple shave biopsy. The specimen must be of sufficient depth to ensure that the base of the epithelium is obtained for histologic examination.

The horn is composed of compact hyperkeratosis, which may be either orthokeratotic or parakeratotic in nature. Associated acanthosis is a common finding. The base will display features of the pathologic process responsible for the underlying lesion

## Treatment

Treatment recommendation is contingent upon the type of lesion at the base. In order to rule out a malignancy, it is essential to perform a biopsy of the lesion that includes the base of the horn. In the case of benign lesions at the base of the horn, the biopsy is both diagnostic and therapeutic.

- Excise malignancies with appropriate margins. Patients discovered to have horns with an underlying squamous cell carcinoma also should be evaluated for metastasis.
- Local destruction with cryosurgery is first-line treatment for verruca vulgaris, actinic keratosis, and molluscum contagiosum. Benign lesions do not require any further therapy after the diagnostic biopsy

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