Cutaneous angiofibroma is a categorical term used to describe several different types of benign lesions with different clinical presentations but similar histologic findings. These include a solitary nonhereditary form (fibrous papule), multiple nonhereditary lesions (pearly penile papules), or multiple hereditary forms as in tuberous sclerosis and other syndromes discussed below.

Fibrous papules are described as solitary, round, skin-colored to reddish papules that are commonly present on the face, especially on the nose. Clinically, they may appear similar to a small mole, basal cell carcinoma, or adnexal tumor. Conservative shaving the lesion flush to the skin is typically curative and recurrence is rare.

Pearly penile papules are pearly, pale, dome-shaped small papules that are closely aggregated on the glans penis. They present in a circumferential manner on the corona. They are seen more commonly in uncircumcised men. Clinically, they can be mistaken for condyloma acuminata or sebaceous hyperplasia. Patients typically present around ages 20-30. There is no treatment necessary.

Multiple facial angiofibromas might be an indicator of some underlying systemic syndrome such as tuberous sclerosis, multiple endocrine neoplasia type 1, Birt-Hogg-Dube syndrome or neurofibromatosis type 2. These angiofibromas can present anywhere on the face. Presentation of >3 facial and >2 nail angiofibromas is one of the major diagnostic criteria for tuberous sclerosis. Additional cutaneous findings in tuberous sclerosis are whitish macules known as ash-leaf spots and large plaques with mildly depressed follicular openings known as shagreen path.

Histology will present dome-shaped lesions composed of a dermal proliferation of stellate fibroblasts inside a collagenous stroma. Thin-walled dilated post capillary venules are characteristic of an angiofibroma. Collagen fibers can be arranged in concentric fashion around hair follicles and blood vessels.