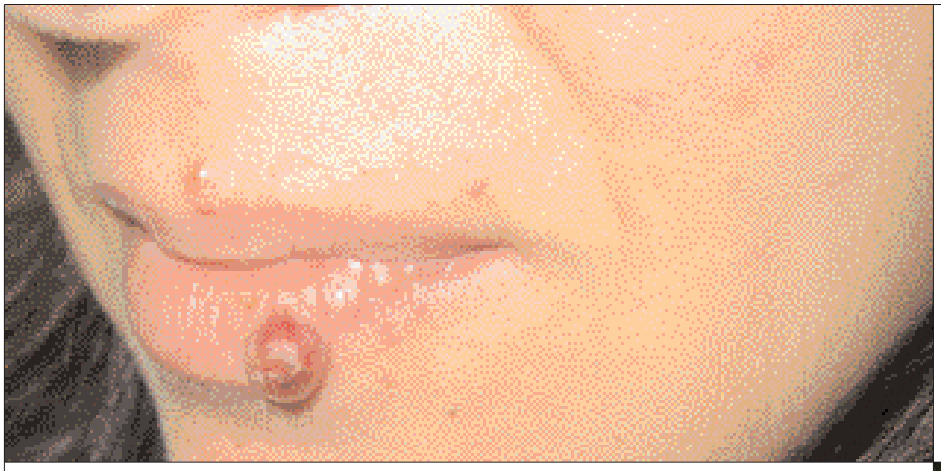

Pyogenic granuloma

A 24-year-old female presents with an erythematous papule that bleeds with minor rubbing or washing. She is 26 weeks pregnant, and is concerned with this growing lesion. She is otherwise healthy and on no medications. What is your diagnosis and what are the treatment options?

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Diagnosis: Pyogenic granuloma

A pyogenic granuloma (PG) is a relatively common benign vascular lesion that grows quickly over a few weeks, and affects skin (particularly head, neck, and digits) and mucosae. The name is a misnomer and the etiopathogenesis is unclear; it has also been referred to as "proud flesh." It is more common in children (especially acral sites), young adults, and during pregnancy (usually 2nd-3rd trimester), and presents as a shiny red papule that is easily prone to bleeding. Discomfort and bleeding, as well as cosmesis, often warrant treatment. PGs have also been associated with trauma, and with oral retinoids (uncommonly, topical retinoids), protease-inhibitors (especially indinavir [Crixivan]), and the chemotherapeutic capecitabine (Xeloda). Curiously, PGs have also been reported in the gastrointestinal tract, conjunctiva and cornea, and nasal mucosa.

Clinical examination reveals a bright red pedunculated papule that is usually several millimetres in size. It is friable and bleeds easily, and so erosion and crusting may be evident. The gingiva, lips and face, fingers and periungual area, and forearms are common locations for involvement, although any skin surface can be affected. Various rare subtypes have been described, including a subcutaneous type, disseminated variant, and pyogenic granuloma with satellitosis. In pregnancy, PGs or "granuloma gravidarum" typically affect intraoral or perioral mucosal surfaces.

The possible etiologic factors attributed to PGs include medications, hormonal influence, trauma, bacterial or viral infections, and angiogenic factors. The differential diagnosis includes angiolymphoid hyperplasia with eosinophilia, large cherry angioma, amelanotic melanoma, metastatic cancer, Kaposi's sarcoma (histological similarity), basal cell carcinoma, bacillary angiomatosis, infantile hemangioma, and various other vascular tumors.

Bloodwork and imaging are unnecessary. A specimen for histopathology shows characteristic features that include overlying erosion or ulceration, with underlying polypoid vascular lesion with fibromyxoid stroma. Capillaries are lined by a single cell layer of endothelial cells and a peripheral hyperplastic collarette may be noted.

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Management involves removing any possible inciting factors, such as medications and trauma, which often results in lesions involuting. PGs can be treated under local anesthesia by shave excision, electrodessication and curettage, or laser surgery. Less commonly, sclerotherapy or silver nitrate have been used with reported efficacy. If cut off too superficially, recurrence is common. PGs in pregnancy typically resolve after delivery, and since recurrences are greater during pregnancy, typically PGs are treated (if not yet self-involuted) after delivery. ■