A 56-year-old white man with dark hair and blue eyes presented for his annual physical examination. His medical history was significant for type 2 diabetes mellitus, hypertension, hyperlipidemia, and primary hypothyroidism.

The physical examination revealed multiple nevi on his back and a nontender, ulcerated lesion on his left upper arm (Figure 1). It was heterogeneous in color with irregular borders and measured 1.5 × 1.5 × 2.5 cm. The examination findings were otherwise normal.

Question
Based on the patient’s history and physical examination findings, which one of the following is the most likely diagnosis?

☐ A. Dermatofibrosarcoma protuberans.
☐ B. Nodular malignant melanoma.
☐ C. Pyogenic granuloma.
☐ D. Solitary keratoacanthoma.
☐ E. Unilesional (solitary) mycosis fungoides.

See the following page for discussion.
A keratoacanthoma is a 1- to 2-cm, dome-shaped or crateriform, squamoproliferative nodule with central hyperkeratosis. It is characterized by spurs of rapid growth, followed by a variable period of lesion stability and spontaneous resolution. Diagnosis is based on histopathologic and clinical findings, including inflammatory infiltrates in the dermis, epidermal hyperplasia, and “lipping” or “buttressing” of the epidermis over the rim of the central keratotic plug.

Mycosis fungoides typically presents as a single erythematous, scaly patch or plaque on non–sun-exposed areas; typically present for several years before diagnosis. Histopathologic features include dermal fibrosis, microabscesses, and hyperconvoluted dermal and epidermal lymphocytes.

Pyogenic granuloma is a benign vascular tumor of the skin that presents as a rapidly growing, red, dome-shaped, pedunculated or sessile papule that is usually less than 1 cm in size. It tends to bleed easily and has a base that is surrounded by a collarette of acanthotic epidermis. It may develop on a capillary vascular or arteriovenous malformation and occasionally occurs following laser treatment or cryotherapy. Spontaneous resolution is rare, but it can be treated with curettage and cautery or laser therapy.

References