A 23-year-old woman presented to her primary care physician eight days postpartum because of a polypoid skin nodule behind the patient’s right ear. She had first noticed the nodule two months prior. The nodule initially had grown quickly, but it had not changed in size in the previous month. It was not painful, but bled easily. The patient had no history of similar lesions, trauma to the area, or other significant dermatologic history. She was otherwise healthy. Physical examination showed an erythematous, dome-shaped nodule measuring 1.2 cm × 1.2 cm with a moist, friable surface and slight scale around the base (Figures 1 and 2).

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

- A. Atypical fibroxanthoma.
- B. Bacillary angiomatosis.
- C. Glomus tumor.
- D. Nodular amelanotic melanoma.
- E. Pyogenic granuloma.

See the following page for discussion.
Pyogenic granulomas occur in up to 5 percent of pregnant women. They may be associated with elevated hormone levels during pregnancy, which can cause the expression of angiogenic factors in inflamed tissues and vascular endothelium or the extension of angiogenic effects by decreasing apoptosis of granuloma cells. Pyogenic granulomas presenting during pregnancy typically appear during the second or third trimester and often occur on oral tissue; however, nonoral tissue also may be affected.

Although the diagnosis of pyogenic granulomas is usually clinical, biopsy can confirm an unclear diagnosis. Histologically, the tumor is a lobular, capillary hemangioma with each lobule separated by a fibrous connective tissue septum. The overlying epidermis often shows inward growth at the base of the tumor causing a pedunculated or “cuffed” appearance with surface ulceration.

An atypical fibroxanthoma is a flesh-colored, white, or erythematous dome-shaped nodule that mainly affects skin that is exposed to the sun or therapeutic forms of radiation. Lesions grow quickly and usually occur on the face, neck, ears, or scalp of older white persons. Many patients with atypical fibroxanthomas have a history of nonmelanoma skin cancers.

Bacillary angiomatosis is characterized by one or more purple papules that enlarge to form lobular, friable nodules or tumors often covered with a fine, tightly adherent scale. It is caused by infection with the gram-negative Bartonella species, which may be transmitted through scratches or from cat or arthropod bites. Systemic symptoms, such as fever, weight loss, and lymphadenopathy, are common. Bacillary angiomatosis has been associated with immunosuppression.

A glomus tumor is a benign neoplasm caused by proliferation of glomus cells in the dermis. It is characterized by a blue to purple papule or nodule that usually affects the distal extremities. Other findings include blanching and paroxysmal pain that is often associated with pressure or temperature changes (especially cold). Because it is the most aggressive subtype of melanoma, it must be distinguished from pyogenic granuloma.

The opinions and assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting views of the U.S. Navy Medical Department or the U.S. Navy Service at large.

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