

A Creepy Crawly Anomaly

A 48-year-old woman is referred to dermatology for examination of a lesion on her ankle. Although the patient is certain that it has remained unchanged for years, she takes her primary care provider's recommendation and agrees to be seen. She says the lesion occasionally itches and has a "crawly" feeling to it, but its size remains consistent.

Located on the lateral aspect of her left ankle is a brownish red, firm, round, intradermal nodule. It measures 8.5 mm and has a faint brown macular halo around it. Biopsy shows multiple round fascicles of spindle cells proliferating in the dermis. Special stains rule out the possibility of dermatofibrosarcoma protuberans, the most serious item in the differential.

The patient's medical history includes breast cancer and a significant family history of skin cancer.

The most likely diagnosis is

- Xanthogranuloma
- Melanoma
- Dermatofibroma
- Granular cell tumor

ANSWER

The correct answer is dermatofibroma (choice "c"), based on the classic histologic picture and



the lack of supportive findings for other items in the differential. These include seborrheic keratosis, granular cell tumor, basal cell carcinoma, and sweat duct cancer.

DISCUSSION

This is a perfect example of one of the most common benign tumors, seen daily in dermatology offices worldwide. Alternately referred to as *superficial benign fibrous histiocytomas*, dermatofibromas (DFs) typically manifest on lower extremities, are about twice as common in women as in men, and usually affect patients in their early 40s.

DFs appear most commonly as low, firm, round to ovoid, pinkish brown papules that dimple with lateral digital pressure. Though not pathognomic, the "dimple sign" is highly suggestive of this diagnosis. DF lesions can also manifest as firm, convex papules or nodules (as in this case) with

the same coloring but without the dimple sign.

For years, DFs were believed to be a reaction to trauma (eg, bug bite). While this theory still has its adherents, more recent studies suggest these are true tumors composed of skin fibroblasts. Their ability to occur internally, even in bone, provides further evidence against their putatively reactive nature.

Histologically, the typical DF shows whorling fascicles of a fibroblastic spindle cell proliferation in the dermis. By contrast, the most dangerous item in the differential, the rare but greatly feared malignant dermatofibrosarcoma protuberans, is characterized by a storiform (cartwheel-shaped) pattern of spindle cells.

DFs are often subject to trauma from shaving and therefore surgically removed. However, since this was not the case for this patient, she chose to leave her lesion in place. **CR**



Joe R. Monroe, MPAS, PA, practices at Dawkins Dermatology Clinic in Oklahoma City. He is also the founder of the Society of Dermatology Physician Assistants.