Postherpetic Pink, Smooth, Annular Convalescing Plaques

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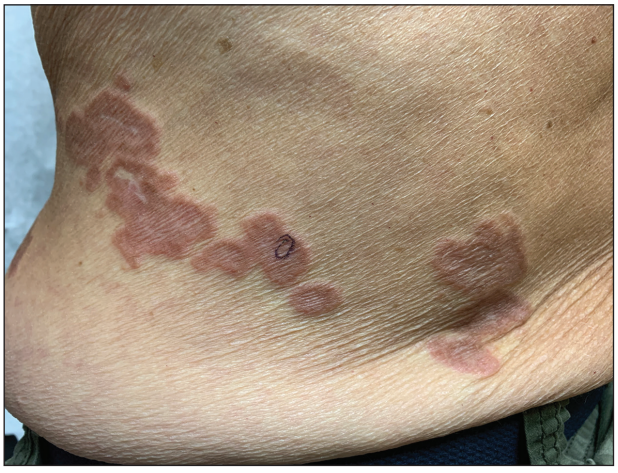

An 82-year-old man presented with painful, pink, smooth, annular convalescing plaques on the right back, flank, and abdomen in a zosteriform distribution involving the T10/11 dermatome. He had a history of hypertension and type 2 diabetes mellitus, and 12 months prior to presentation he had an outbreak of herpes zoster virus in the same distribution that was treated with valacyclovir 1000 mg 3 times daily for 7 days. Over the following month he noticed a resolution of blisters and crusting as they morphed into the current lesions.

WHAT'S YOUR **DIAGNOSIS?**

a. annular elastolytic giant cell granuloma
b. annular lichen planus
c. granuloma annulare
d. nummular eczema
e. superficial erythema annulare centrifugum

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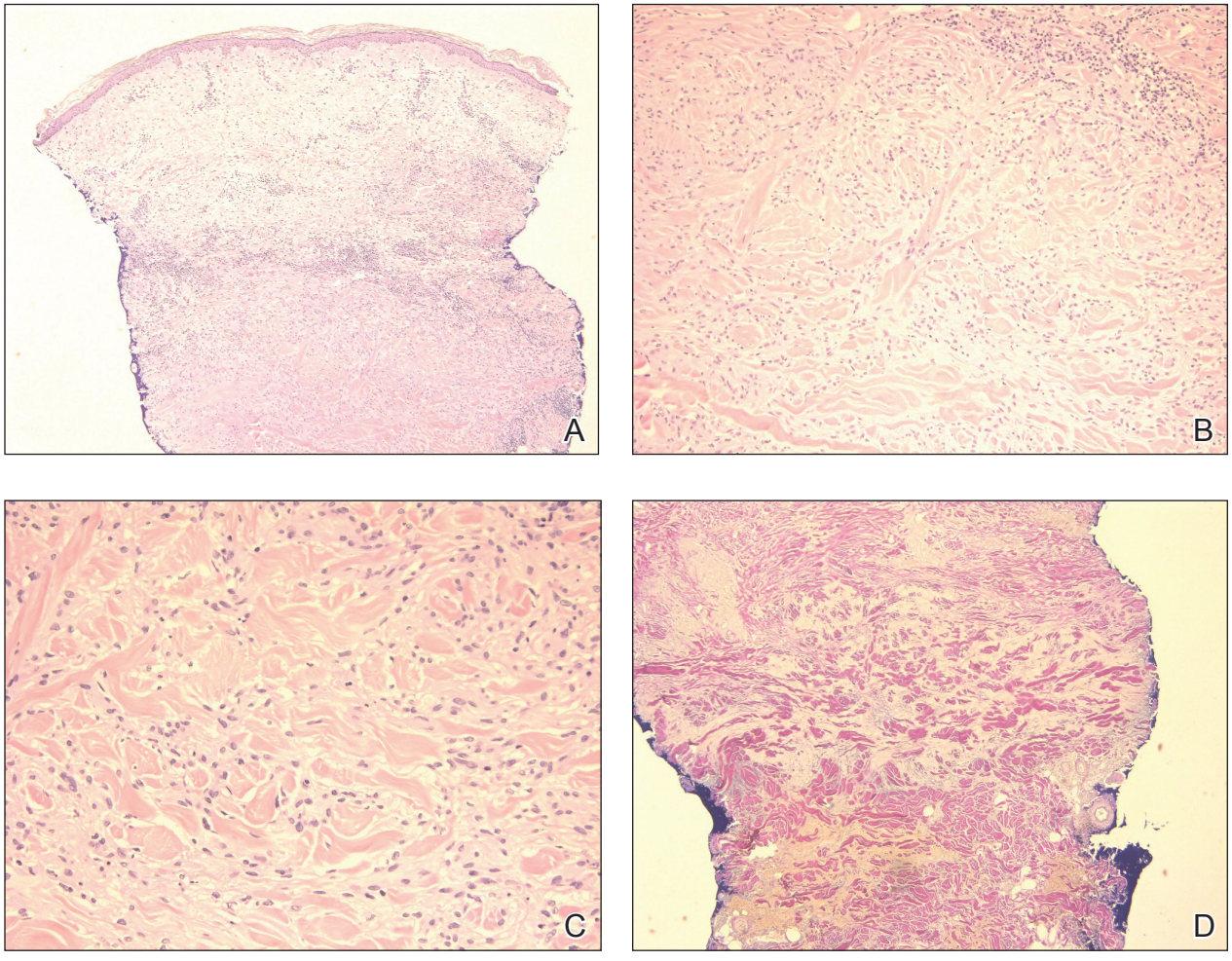
THE **DIAGNOSIS:** Granuloma Annulare

A biopsy of a lesion on the right flank demonstrated granulomatous inflammation and interstitial mucin (Figure), characteristic of granuloma annulare (GA).[1,2] Granuloma annulare is a relatively common skin disorder with an unknown etiology. It typically presents as smooth, annular, erythematous plaques.[1] The most common variants of GA are localized, generalized, and subcutaneous. Our case demonstrated Wolf isotopic response, an unrelated skin disease that forms at the same location as a previously healed skin lesion.[2] It is important to be aware of this phenomenon so that it is not confused with a recurrence of herpes zoster virus (HZV).

Although relatively infrequent, GA is the most common isotopic response following HZV infections.[3-5] Other postherpetic isotopic eruptions include cutaneous malignancies, lichen planus, sarcoidosis, morphea, reactive perforating collagenosis, psoriasis, and infections, among others.[3,5,6] The time between HZV infection and GA can be variable, ranging from a few weeks to many years apart.[3]

Oftentimes GA will spontaneously resolve within 2 years; however, recurrence is common.[7-9] There currently are no standard treatment guidelines. The most promising treatment options include intralesional or topical glucocorticoids for localized GA as well as phototherapy or hydroxychloroquine for widespread disease.[8,10]



Biopsy from the right flank. A, Low power showed a cellular infiltrate in the dermis (H&E, original magnification ×1). B and C, Histiocytes scattered between collagen bundles (H&E, original magnifications ×10 and ×20, respectively). D, Colloidal iron stain demonstrated interstitial mucin (original magnification ×5).

Annular elastolytic giant cell granuloma (also called actinic granuloma) is a rare idiopathic inflammatory skin disease. It is characterized by erythematous annular papules or plaques mainly found on sun-exposed skin, such as the backs of the hands, forearms, or face.[11,12] Therefore, based on the distribution of our patient's lesions, annular elastolytic giant cell granuloma was an unlikely diagnosis. Furthermore, it is not a known postherpetic isotopic reaction. Annular elastolytic giant cell granuloma can appear histologically similar to GA. Differentiating histologic features include a nonpalisading granuloma as well as the absence of mucin and necrobiosis.[12]

Annular lichen planus is a long-recognized but uncommon clinical variant of lichen planus that typically presents as pruritic, purple, annular plaques on the penis, scrotum, or intertriginous areas.[13] The violaceous coloring is more characteristic of lichen planus. Histology is helpful in differentiating from GA.

Nummular eczema presents as scattered, well-defined, pruritic, erythematous, coin-shaped, coin-sized plaques in patients with diffusely dry skin.[14] The scaling and serous crusting as well as more prominent pruritus help distinguish it from GA. The appearance of nummular eczema is quite characteristic; therefore, a biopsy typically is unnecessary for diagnosis. However, a potassium hydroxide wet mount examination of a skin scraping should be performed if tinea corporis also is suspected.

Superficial erythema annulare centrifugum classically presents as an annular or arciform pruritic lesion with an advancing outer erythematous edge with an inner rim of scale that most commonly occurs on the lower extremities.[15] The presence of pruritus and trailing scale helps distinguish this lesion from GA. Histologically, there are epidermal changes of hyperplasia, spongiosis, and parakeratosis, as well as lymphohistiocytic infiltrate surrounding the superficial dermal vessels.[16]

We report this case to highlight GA as the most common postherpetic isotopic response. It should be on the differential diagnosis when a patient presents with erythematous, smooth, annular plaques occurring in the distribution of a resolved case of HZV.

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