SECTION EDITOR: GRACE S. ROZYCKI, MD

Image of the Month

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A 44-YEAR-OLD woman who was diagnosed as having adenocarcinoma of the sigmoid colon (Dukes C) underwent surgical resection with curative intent. Six months after surgery, during her fourth course of adjuvant chemotherapy with fluorouracil and leucovorin calcium, she began complaining of flulike symptoms, including nasal congestion, cough, general malaise, and body aches. These symptoms were followed by the abrupt onset of painful erythematous plaques over her neck, upper chest, and extremities (**Figure 1**). A skin punch biopsy specimen demonstrated dermal infiltration with neutrophils (**Figure 2**). There were no signs of vasculitis. Except for a polymorphonuclear leukocytosis, laboratory results were within normal limits. An extensive workup, including computed tomographic imaging of the chest and abdomen and a bone marrow biopsy, to rule out recurrent or persistent colon cancer or an unrelated occult malignancy, was negative.

From the Departments of Surgery (Drs Duchesne and Woltering) and Dermatology (Drs Mittelbronn and Nesbitt), Louisiana State University Health Sciences Center, New Orleans.

What Is the Diagnosis?

A. Erythema multiforme
B. Erythema nodosum
C. Pyoderma gangrenosum
D. Sweet syndrome

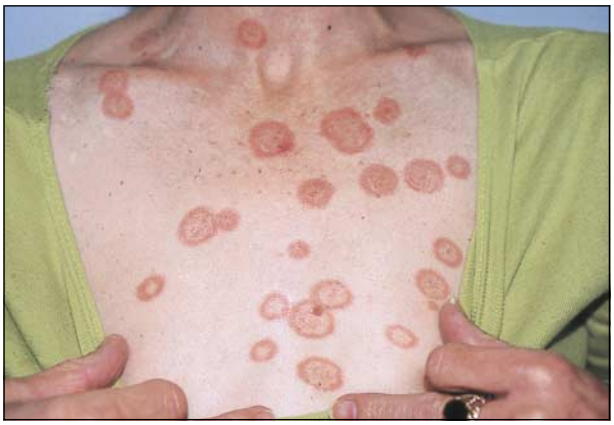

Figure 1.

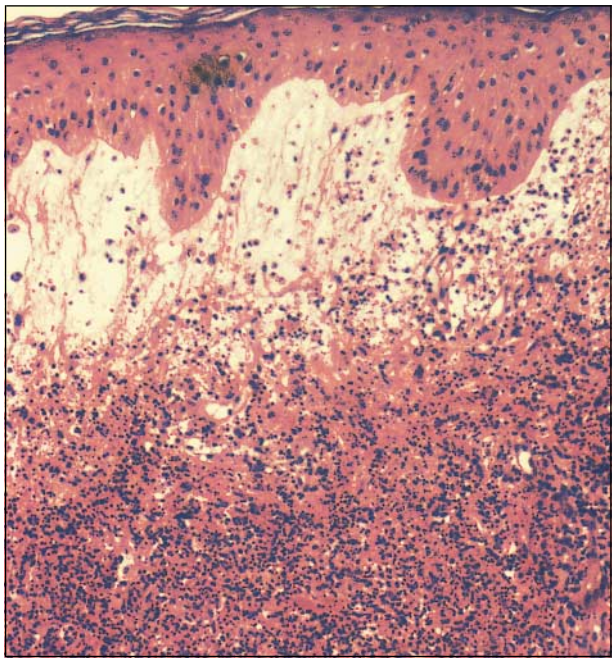

Figure 2.

Answer

Sweet Syndrome

Figure 1. Photograph demonstrating erythematous plaques on the patient's chest.

Figure 2. Photomicrograph of dermal biopsy specimen demonstrating dermal infiltration with neutrophils (hematoxylin-eosin, original magnification ×100).

Robert Douglas Sweet first described Sweet syndrome in 1964.[1] In his report, Sweet described 8 patients with a neutrophilic dermatosis associated with acute febrile illnesses.[1] Sweet syndrome primarily affects adults 30 to 60 years of age and has a female-male ratio of 3:1. There are 4 subtypes of the syndrome: the classic type (71% of cases) and types associated with neoplasia (11% of cases), inflammatory disease (16% of cases), and pregnancy (2% of cases). The primary lesion is a sharply marginated, tender, erythematous plaque, 2 to 10 cm in diameter, that typically appears as multiple lesions on the face, neck, upper trunk, and extremities. Asymmetry of distribution is common. Onset can be abrupt and lesions may increase in size quickly. In 90% of cases, a significant illness, such as an upper respiratory tract infection, precedes the onset of lesions. Fever, myalgia, arthritis, conjunctivitis, renal involvement, and leukocytosis are common features of the syndrome.[2] Sweet syndrome may be associated with hematologic malignancies, although our patient had no evidence of hematologic malignancy or recurrence of colon cancer at the time the rash developed.

Histologically, a dense perivascular infiltrate composed of neutrophils without signs of vasculitis is characteristic. The neutrophils become more widespread in the dermis over time and may be present in limited amounts in the epidermis and subcutis. Dermal edema is typical, mild spongiosis and focal parakeratosis appear in the epidermis, and the vascular endothelium may be swollen. Systemic glucocorticosteroids are the treatment of choice in all patients with Sweet syndrome. A dosage of oral prednisone, 40 to 60 mg/d, followed by 4 to 6 weeks of tapering, has been successful in most cases, resulting in rapid resolution of the lesions. Recurrence is common, and the disease has been reported to last up to 10 years.[3]

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REFERENCES

1. Sweet RD. An acute febrile neutrophilic dermatosis. *Br J Dermatol.* 1964;74:349-356.
2. Storer JS, Nesbitt LT Jr, Galen WK, Deleo VA. Sweet's syndrome. *Int J Dermatol.* 1983;22:8-12.
3. Fitzgerald RL, McBurney EI, Nesbitt LT Jr. Sweet's syndrome. *Int J Dermatol.* 1996;35:9-15.

Submissions

The Editor welcomes contributions to the *Image of the Month*. Send manuscripts to Grace S. Rozycki, MD, Department of Surgery, Emory University School of Medicine, 69 Butler St SE, Atlanta, GA 30303; (404) 616-3553; fax (404) 616-7333 (e-mail: grozyck@emory.edu). Articles and photographs accepted will bear the contributor's name. Manuscript criteria and information are per the Instructions for Authors for *Archives of Surgery*. No abstract is needed, and the manuscript should be no more than 3 typewritten pages. There should be a brief introduction, 1 multiple-choice question with 4 possible answers, and the main text. No more than 2 photographs should be submitted. There is no charge for reproduction and printing of color illustrations.