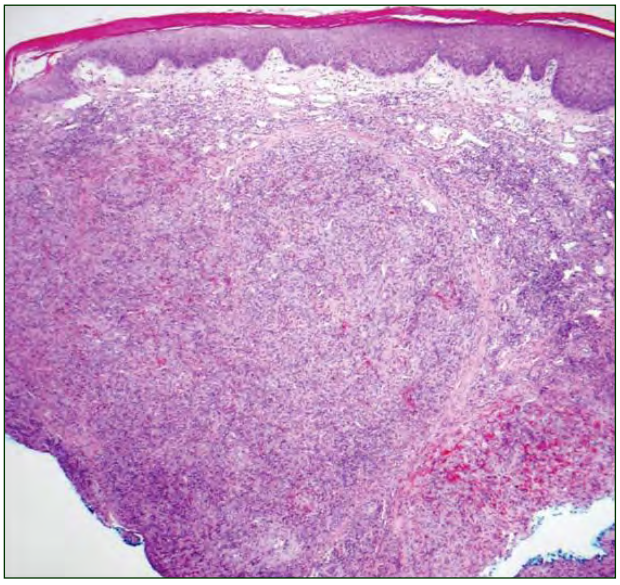
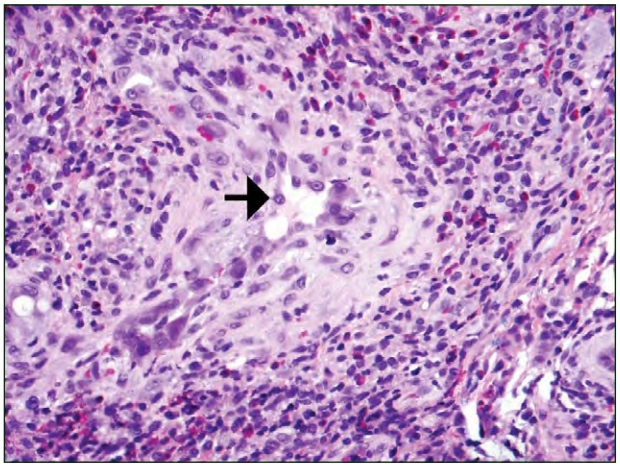


H&E, original magnification ×40.



H&E, original magnification ×400.

The best diagnosis is:

a. angiolymphoid hyperplasia with eosinophilia
b. Churg-Strauss syndrome
c. granuloma faciale
d. nodular Kaposi sarcoma
e. pyogenic granuloma

PLEASE TURN TO PAGE 117 FOR DERMATOPATHOLOGY DIAGNOSIS DISCUSSION

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The author reports no conflict of interest.
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Angiolymphoid Hyperplasia With Eosinophilia

Angiolymphoid hyperplasia with eosinophilia (ALHE) presents as an increase in immature, primarily lymphatic vessels with plump endothelial cells lining vascular spaces, often with an associated medium-sized vessel (Figures 1 and 2).[1] Surrounding the vascular component is a mixed infiltrate composed of lymphocytes that may form lymphoid follicles as well as histiocytes, plasma cells, and eosinophils (Figure 2). Angiolymphoid hyperplasia with eosinophilia may involve the dermis and/or subcutaneous tissue,[2] and it often occurs in young adults, typically in the head and neck region, especially on or around the ear. Angiolymphoid hyperplasia with eosinophilia generally is asymptomatic, though patients may experience pruritus.[3] It has been debated if ALHE represents a neoplastic or reactive process. Although the etiology of ALHE is unknown, hormones, trauma,[4] and infection/infestation[5] have been cited as possible factors.[6] Kimura disease is a similar yet unrelated disorder that occurs in young Asian men and is associated with lymphadenopathy and peripheral eosinophilia.[7]

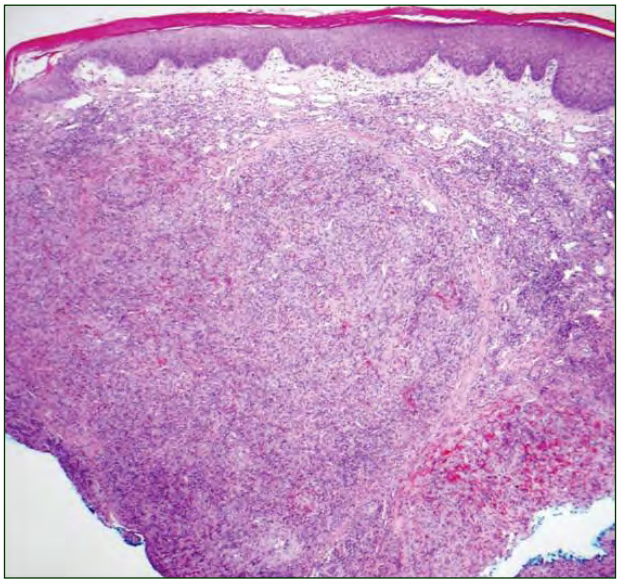

Figure 1. Angiolymphoid hyperplasia with eosinophilia (H&E, original magnification ×40).

Churg-Strauss syndrome is a systemic small- to medium-sized vasculitis occurring in the setting of asthma and peripheral eosinophilia. Histologically, cutaneous biopsies of Churg-Strauss syndrome most classically demonstrate a necrotizing leukocytoclastic vasculitis with eosinophils (Figure 3), which is not present in ALHE and may be associated with extravascular palisading and neutrophilic granulomas.[8] In contrast to ALHE, vascular proliferation is absent.

Pyogenic granuloma presents as an eruptive papule, often eroded or ulcerated with an epidermal collarette. This vascular proliferation contains lobular collections of small round capillaries separated by fibrous stroma, as opposed to the immature blood vessels with hobnailing seen in ALHE (Figure 4).[6]

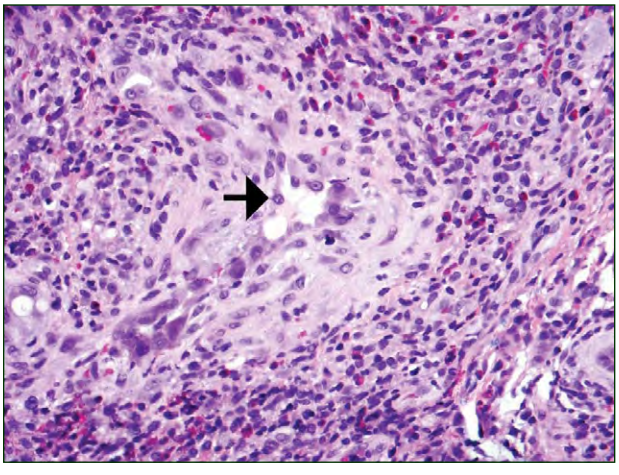

Figure 2. Prominent plump endothelial cells (arrow) with surrounding eosinophils (H&E, original magnification ×400).

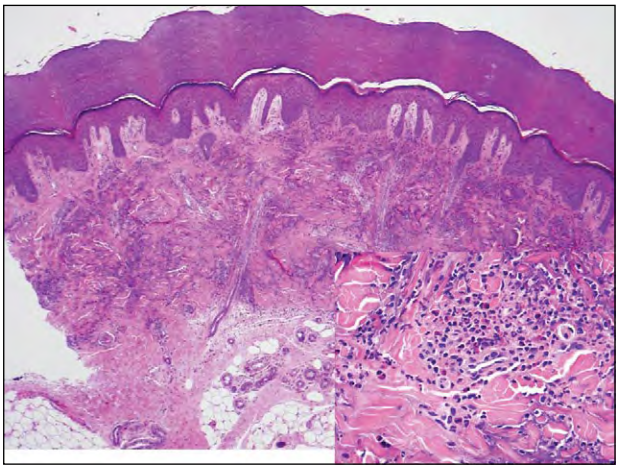

Figure 3. Churg-Strauss syndrome (H&E, original magnification ×400 [inset]) demonstrating a neutrophilic and eosinophilic infiltrate around blood vessels with focal nuclear debris and fibrin deposition (H&E, original magnification ×40).

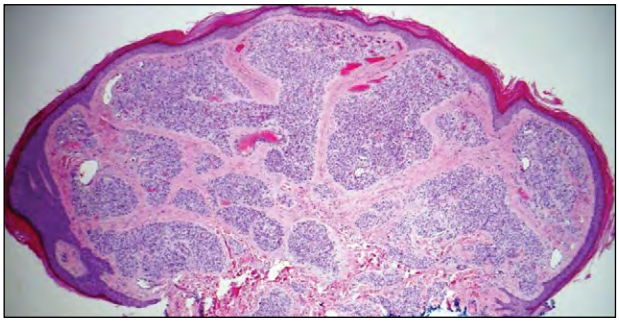

Figure 4. Lobular capillary hemangioma with an epidermal collarette consistent with pyogenic granuloma (H&E, original magnification ×40).

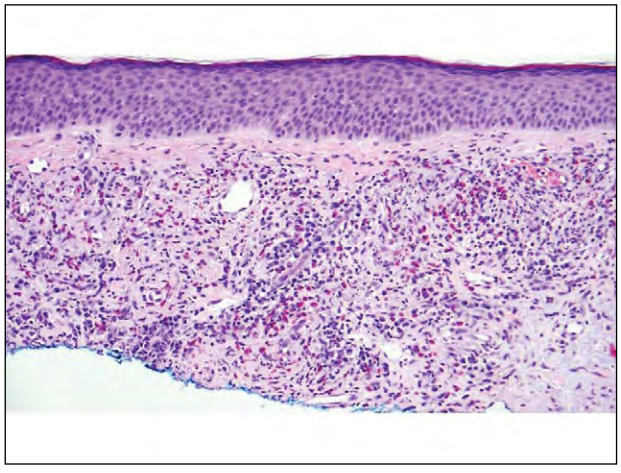

Figure 5. Granuloma faciale exhibiting a dense polymorphous inflammatory infiltrate consisting of neutrophils, lymphocytes, eosinophils, monocytes, and plasma cells located in the papillary and mid dermis with an overlying grenz zone (H&E, original magnification ×200).

Granuloma faciale presents as a red-brown plaque usually on the face that often is resistant to treatment. Although granuloma faciale may have eosinophils similar to ALHE, it is a chronic leukocytoclastic vasculitis, which is not demonstrated in ALHE. Granuloma faciale characteristically demonstrates a grenz zone with an underlying diffuse polymorphous infiltrate containing lymphocytes, eosinophils, plasma cells, and neutrophils (Figure 5), as well as leukocytoclasis and fibrin deposition. Fibrosis is variably present depending on the stage of the lesion.[8]

Nodular Kaposi sarcoma is a human herpesvirus 8–induced vascular spindle cell proliferation with slitlike vascular spaces containing single-file erythrocytes (Figure 6).[6] Angiolymphoid hyperplasia with eosinophilia generally does not contain spindle cells. There may be an accompanying lymphoplasmacytic infiltrate; however, eosinophils are not a characteristic feature (Figure 6). Human herpesvirus 8 is not associated with ALHE.[2]

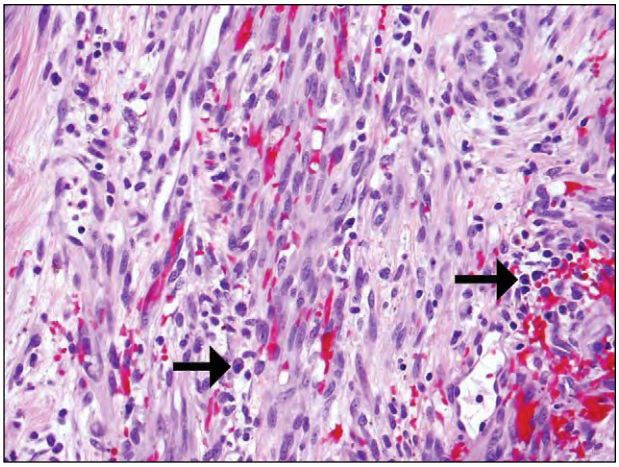

Figure 6. Kaposi sarcoma demonstrating a spindle cell proliferation with slitlike vascular spaces and plasma cells (arrows)(H&E, original magnification ×400).

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