



Hemepath Case 46: 21-Year-Old Female

HISTORY

A 21-year-old female presents with red, 2-3 cm, non-pruritic targetoid lesions and bullae on her trunk. Her buccal mucosa and lips are red and swollen, and especially painful when she eats. Her conjunctivae are also inflamed. A few days prior, she had a sore throat and experienced chills and fatigue, and thought she had the flu.

One week ago, she began taking Septra for a urinary tract infection. Past medical history is noncontributory. There is no history of allergies, either environmental or drug-related.

CBC

Hgb (g/L)	N
MCV	N
WBC	High
Plt	N

DESCRIPTION OF SLIDE

Peripheral Blood Smear

The peripheral smear shows moderate eosinophilia, with normal morphology of eosinophils (see rectangles). Neutrophils are also increased and exhibit reactive changes, including vacuolations (see circles). There are no significant neutrophilic left shift and no abnormal circulating cells. RBCs and platelets are unremarkable.

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MORPHOLOGICAL DIAGNOSIS

Eosinophilia

DISCUSSION

The peripheral smear shows reactive neutrophilic changes as well as eosinophilia. The differential diagnosis for eosinophilia includes both malignant and benign causes. The malignant causes are relatively few: myeloproliferative disorders including CML, Hodgkin lymphoma, acute eosinophilic leukemia, and some carcinomas.

The benign causes are much more likely and much more numerous. These include: allergic and hypersensitivity disorders (including drug allergies); parasitic infections; a variety of skin disorders including those due to autoimmunity, allergy, and insect bites; various connective tissue disorders; and sarcoidosis.

This particular patient was diagnosed with erythema multiforme major, synonymous with Stevens-Johnson syndrome – an uncommon dermatological condition due to immune complex hypersensitivity. It is most commonly associated with medications, such as sulfonamides, penicillin, certain anticonvulsants, and NSAIDs, but may also be caused by infections (such as HSV). Patients typically complain of a flu-like prodrome 1-2 weeks prior to an acute, severe eruption of cutaneous lesions throughout the body. Classically, these are targetoid lesions with 2 zones of color, and involve 2 or more mucosal surfaces.