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Clinical History:
38 year old Caucasian gentleman presented with a 9 month history of pruritic skin rash. There was extensive involvement of the upper body, predominantly head, neck and chest by erythematous macules, plaques and papules. Clinically, diagnosis of mycosis fungoides (MF) was suspected. A 5 mm punch biopsy is included.

Biopsy Fixation Details:
Buffered formalin

Description of Clinical Image if Any:
Dusky, erthematous macules, fine papules and plaques on head, neck, chest and arms. Later images (February 2011) show more extensive involvement.

Details of Microscopic Findings:
Skin with a deep folliculotropic infiltrate comprising small and medium size lymphoid cells. In addition the perifollicular infiltrate contains histiocytes, plasma cells and eosinophils. Follicular abscess formation is noted but there is no definite follicular mucinosis. The overlying epidermis is spared.

Immunophenotyping by Immunohistochemistry and/ or Flow Cytometry:
There is a dense small lymphocytic perifollicular T-cell infiltrate with marked folliculotropism. The overlying epidermis is spared. The phenotype is: CD3+, CD5+, CD4+>CD8+. In the background there are patchy aggregates of B lymphocytes and plasma cells highlighted by CD20 and CD79a.

Flow cytometry of peripheral blood showed no evidence of Sézary cells.

Special Stains:
None

Cytogenetics:
None

Molecular Analysis:
PCR analysis with Biomed-2 TCR-beta primers highlighted a T-cell clone. A polyclonal pattern was seen with the TCR-gamma primers. There was no evidence of clonality with the IGH(FR1-3), Vk-Jk or KDE primers.

Interesting Feature(s) of Submitted Case:
Features of a folliculotropic variant of MF are presented. This form of MF frequently contains a polymorphous inflammatory infiltrate including plasma cells and eosinophils. Secondary infection and follicular abscess formation could additionally obscure the diagnostic features. As the surface

epithelium is spared, superficial biopsies may not be diagnostic. The therapeutic response may not be as good as with conventional MF.

Proposed Diagnosis:
Folliculotropic variant of mycosis fungoides.

Panel Diagnosis:
Agree.

Comments:
The extent of disease was staged clinically as 1B (T2b N0 B0 M0). The initial management included steroid cream followed by PUVA. The patient reacted badly to PUVA, developing MRSA superinfection of skin. Subsequent administration of systemic steroids was not beneficial. Recent investigations revealed significantly raised LDH. Four months following diagnosis further treatments are considered include total skin electron beam therapy, bexarotene (+/- interferon), or liposomal doxorubicin.