Tumour mycosis fungoides

Usually some epidermal disease

Substantial dermal population

Often marked cytological atypia /mitoses
Diagnosis

Histology does not diagnose mycosis fungoides but cutaneous T-cell lymphoma.

The presence of patches and plaques denotes MF and reflects the likely course of disease.

Lack of epidermotropism, unusual phenotype do not alter that clinical course or diagnosis.
Immunophenotype

Early stages express T-cell markers

CD 2,3,5,7 +

CD7 most frequently lost

CD4 >> CD8

CD45 RO+

Cytotoxic granules not infrequent in later stages
Immunohistochemistry

Early stages — rarely useful

Most dermatoses are CD4+ T-cell

Care in evaluating CD4/8 ratios

Later — diagnosis of lymphoma is clear, but which type?
Transformed mycosis fungoides

Denotes accelerated phase in course of disease

Might be CD30(+) 

Not synonymous with tumour MF

Large atypical cells (4x the size of a lymphocyte) >25% of infiltrate or forming microscopic nodules

Independent prognostic factor?
CD4(-) CD8(-)
CD4(+) CD8(+) 
CD56(+)

[Image of a person with skin lesions]
Primary cutaneous CD30(+) lymphoproliferative disorders

Expression of CD30 defines a specific subgroup of primary cutaneous lymphoproliferative diseases

CD30 required but not sufficient for the diagnosis

Lymphomatoid papulosis

Anaplastic large cell lymphoma
CD30

Initially recognised on Reed Sternberg cells in HD by antibodies Ki-1 and Ber-H2
Immunopositivity denoted by membranous and paranuclear (Golgi region) dot-like positivity
Protein belongs to the TNF receptor family; gene located at 1p36
CD30 expression is associated with activation-induced on B and T cells and can be found in normal reactive lymph nodes; macrophages can express CD30, particularly in granulomas.