Lymphomatoid papulosis

Clinically papule and nodules waxing and waning

Young- middle aged adults

Histopathologically, atypical CD30(+) cells

Beware, histopathology variable and multiple (serious) differential diagnoses

LyP with angiocentricity and those with 6p25.3 some unique clinical features
Anaplastic large cell lymphoma

One (80%) or more cutaneous tumours >2cm

Trunk & extremities

25-40% of lesions regress

No systemic disease on staging & for 6 months

>75% of cells express CD30

5-year DSS >95%
Primary Cutaneous Anaplastic Large Cell Lymphoma

Diffuse infiltrate

Anaplastic & Reed-Sternberg cells

Variable admixed inflammation
Pyogenic Variant of Primary Cutaneous Anaplastic Large-Cell Lymphoma: A Lymphoproliferative Disorder With a Predilection for the Immunocompromized and the Young

John A. Papalas, MD,* David Van Mater, MD, PhD,† and Endi Wang, MD, PhD*

(Am J Dermatopathol 2010;32:821–827)
Primary Cutaneous Anaplastic Large Cell Lymphoma

T-cell antigens (+)  
CD4 >> CD8  
TIA-1(+) Granzyme B(+)  

CD30 (+)  
MUM-1/IRF4 (+)
Phenotypic Variability in Primary Cutaneous Anaplastic Large T-cell Lymphoma: A Study on 35 Patients

Cesare Massone, MD and Lorenzo Cerroni, MD


DISCUSSION

This is one of the largest studies performed on immunophenotype of pcALCL, showing that profoundly aberrant phenotypes are more common than previously reported and that a conventional T-helper phenotype is a rare exception rather than the rule. In the WHO-EORTC and WHO classifications of lymphomas pcALCL is defined as a tumor composed of large cells with anaplastic, pleomorphic, or immunoblastic morphology expressing CD30, T-cell markers, CD4, and frequently cytotoxic proteins (granzyme B, TIA-1, perforin).1–3 Some cases (<5%) have a CD8+ T-cell phenotype.1–3,10 Variable loss of T-cell markers is common, but the exact frequency is unknown.
Cutaneous v systemic ALCL

ALK-1 (-) (cf systemic ALCL)
EMA usually negative

Expression of ALK Fusion Proteins in ALK+ Anaplastic Large Cell Lymphoma

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Genetic Alteration</th>
<th>Fusion Proteins</th>
<th>Staining Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>72.5%</td>
<td>t(2;5)</td>
<td>NPM 80 kd</td>
<td>cytoplasmic and nuclear</td>
</tr>
<tr>
<td>17.5%</td>
<td>t(1;2)</td>
<td>TPM3 104 kd</td>
<td>cytoplasmic and membranous</td>
</tr>
<tr>
<td>2.5%</td>
<td>t(2;3)</td>
<td>TFG 97 kd</td>
<td>cytoplasmic</td>
</tr>
<tr>
<td>2.5%</td>
<td>inv(2)</td>
<td>ATIC 96 kd</td>
<td>cytoplasmic</td>
</tr>
<tr>
<td>2.5%</td>
<td>t(2;22)</td>
<td>CLTCL 250 kd</td>
<td>granular cytoplasmic</td>
</tr>
</tbody>
</table>
CD30+ Lymphoproliferative Disorders

Lymphomatoid Papulosis

Borderline Cases

Cutaneous Anaplastic Large Cell Lymphoma
C/o Dr Debjani Sahni
Boston University Medical Centre
Anaplastic Lymphoma v. LyP

Both CD30(+) 
Atypical & inflammatory cells variable

Diagnose: ñCD30(+) lymphoproliferative diseaseò

NEED clinical information
CD30 expression

- Mycosis fungoides / Sézary syndrome
- Systemic anaplastic large cell lymphoma
- Hodgkin's disease
- Follicle centre cell lymphoma
- B-cell lymphomas arising in the immunocompromised
- Almost any lymphoma as an incidental finding
Large CD30-positive cells in benign, atypical lymphoid infiltrates of the skin

Betina Werner¹, Cesare Massone², Helmut Kert² and Lorenzo Cerroni²

¹Hospital de Clínicas, Department of pathology, Universidade Federal do Parana, Curitiba, Brazil, and
²Department of Dermatology, Medical University of Graz, Graz, Austria
Large CD30+ cells in benign atypical lymphoid infiltrates of the skin

28 cases
Orf
Herpes simplex
Drug
Leishmania
Insect & spider bite

- clusters of cells & membranous/golgi staining
Contribution of longitudinal follow up and clinical pathological correlation in the diagnosis CD30-positive skin infiltrates†

Aieska De Souza¹, Joi B. Carter¹, Nancy L. Harris², Judith A. Ferry² and Lyn M. Duncan²

¹Department of Dermatology, Massachusetts General Hospital, Boston, MA, USA and ²Department of Pathology, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA
Diagnosis

Clinical

Dermatopathology and immunohistochemistry

Analysis for T or B cell clonality
Errors in last few years

Peripheral TCL NOS with CHOP for 12 months in typical MF

Peripheral TCL NOS in reaction to hair dye

Peripheral TCL NOS insect bite, vasculitis

Berti's lymphoma í seborrheic keratosis

Histiocytic sarcoma í interstitial granuloma annulare

Extranodal NK/T-cell lymphoma í typical MF