Evaluation of Potential Anaplastic Large Cell Lymphoma Cases

Morphology suggests ALCL, order PATHC / Pathology Consultation

Stains recommended: H&E, CD2, CD3, CD4, CD5, CD7, CD8, CD20, CD30, ALK-1, Granzyme B, p63, TCR-BF1, TCR-gamma delta, TIA-1

CD30 positive and ALK-1 positive

Diagnostic for ALCL, ALK positive

Skin Involvement?

- YES: Consider primary cutaneous ALCL
- NO: Systemic ALCL, ALK positive

p63 >30% positive

Order:
- IRF4F / Cutaneous Anaplastic Large Cell Lymphoma, 6p25.3 (DUSP22 or IRF4) Rearrangement, FISH, Tissue
- TP63F / Peripheral T-Cell Lymphoma (PTCL), TP63 (3q28) Rearrangement, FISH, Tissue

TP63 FISH positive

- DUSP-22 positive or negative

Skin Involvement?

- NO: Systemic ALCL, ALK negative, High risk for adverse outcome
- YES: Consider primary cutaneous ALCL

TP63 FISH negative

- DUSP-22 negative

Skin Involvement?

- NO: Systemic ALCL, ALK negative, Intermediate prognosis
- YES: Consider primary cutaneous ALCL

TP63 FISH negative

- DUSP-22 positive

Skin Involvement?

- YES: Consider primary cutaneous ALCL
- NO: Systemic ALCL, ALK negative, Favorable prognosis

CD30 positive and ALK negative

Morphology and phenotype diagnostic of ALCL

Skin Involvement?

- YES: Review p63 IHC
- NO: Consider other PTCL types

p63 <30% positive

Order:
- IRF4F / Cutaneous Anaplastic Large Cell Lymphoma, 6p25.3 (DUSP22 or IRF4) Rearrangement, FISH, Tissue

TP63 FISH negative

- DUSP-22 negative

Skin Involvement?

- YES: Consider primary cutaneous ALCL
- NO: Systemic ALCL, ALK negative, Intermediate prognosis

DUSP-22 positive

- Systemic ALCL, ALK negative, High risk for adverse outcome
- Consider primary cutaneous ALCL

- Systemic ALCL, ALK negative, Intermediate prognosis
- Consider primary cutaneous ALCL

- Systemic ALCL, ALK negative, Favorable prognosis
- Consider primary cutaneous ALCL

- Systemic ALCL, ALK negative, Intermediate prognosis

ALCL=Anaplastic large cell lymphoma
PTCL=Peripheral T-cell lymphoma
H&E=Hematoxylin and eosin
IHC=Immunohistochemistry