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

NO

Consider primary cutaneous ALCL

Systemic ALCL, ALK positive

CD30 positive and ALK negative

Morphology and phenotype diagnostic of ALCL

Skin Involvement?

YES

NO

Review p63 IHC

Consider other PTCL types

p63 >30% 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

YES

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

TP63 FISH negative

DUSP-22 negative

Skin Involvement?

NO

YES

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

TP63 FISH negative

DUSP-22 positive

Skin Involvement?

NO

YES

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

DUSP-22 negative

Skin Involvement?

NO

YES

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

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