Peripheral T-cell lymphoma with progression to a clonally related, Epstein Barr virus+, cytotoxic aggressive T-cell lymphoma: evidence for secondary EBV infection of an established malignant T-cell clone.

Abstract:
We report a case of primary Epstein Barr virus (EBV) negative peripheral T-cell lymphoma (PTCL) NOS in a 56-year-old female who-after an initially indolent course - simultaneously developed an aggressive, EBV+ cytotoxic large T-cell lymphoma, clonally related to the primary PTCL, and an EBV+, clonal large B-cell lymphoproliferation. The initial, EBV-negative PTCL had shown some features of angioimmunoblastic T-cell lymphoma and had responded well to steroid therapy. Two years later, rapidly fatal, progressive disease with multivisceral involvement developed. Histologically, extensive infiltrates of EBV+, CD8+ large cells were present, in addition to areas of the initial PTCL. Extensive comparative phenotypic and molecular analyses confirmed the presence of an identical CD8+ T-cell clone in the initial EBV-negative PTCL and the EBV+, CD8+ large cell lymphoma at the time of aggressive transformation. These results also justified the retrospective classification of PTCL, NOS for the initial lymphoma. This case shows that secondary EBV infection of an established malignant T-cell clone can occur and may contribute to aggressive transformation of PTCL.

Zeitschriftentitel / Abkürzung:
Am J Surg Pathol