Working group: EAHP. The use of molecular techniques in routine diagnosis (How molecular techniques resolved my case)- ECP BILBAO, SEPTEMBER 2018

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A 65-year-old male with a prior history of acute myocardial infarction was diagnosed with stage IV EBV+ lymphoproliferative disorder.

He was treated with 6 cycles of R-CHOP achieving a partial response. The patient was referred to our hospital for autologous hematopoietic progenitor cell transplantation (auto-HPT).

At this moment he presented skin lesions.
CD20, PAX5, CD30 and EBERs negative

CD3, CD4, PD-1 and CXCL13 positive
Polymerase chain reaction (PCR)

$TCRB$ tube A $V\beta$-$J\beta$
Increase of T-cells positive for CD3, CD4, PD-1 and CXCL13 without loss of T-cell markers.
TCRB tube A Vβ-Jβ

INGUINAL LYMPH NODE

SKIN
Diagnosis

Nodal peripheral T-cell lymphoma with a TFH phenotype
Treatment

ESHAP x 3 cycles → DISEASE PROGRESSION → Brentuximab Vedotin x6 cycles → COMPLETE REMISSION → Allo-HPT

August – October 2016

December – April 2017
Follow up after allo-HPT
IGH-FR2

2015 LYMPH NODE LATEROCERVICAL

2015 LYMPH NODE INGUINAL

2017 SMALL BOWEL
IGK tube B  V\(_k\)/intron-Kde

2015 LYMPH NODE INGUINAL

2017 SMALL BOWEL
Diagnosis

Polymorphic EBV+ post-transplant lymphoproliferative disorder.
• The awareness that a proliferation of B-cells may overshadow the neoplastic T-cells.
• Review of the histology and the possibility to compare clonality is essential to avoid misdiagnosis and inappropriate therapy.
• The importance to perform a complete molecular study and the opportunity to perform a second biopsy.

Angioimmunoblastic T-cell lymphoma partially obscured by an Epstein-Barr Virus negative clonal plasma cell proliferation. Huppmann AR et al. JCO 2013;31(2):28-30
• AITL, F-PTCL and nodal PTCL with TFH phenotype share phenotypic and clinical features, genetic events and molecular signatures.

• Literature supports the dissociation of F-PTCL and PTCL with TFH-phenotype out of the PTCL-NOS entity, and the grouping of these new provisional entities together with AITL, based on their TFH cell derivation as the unifying feature.

• The distinction between PTCL of TFH origin versus PTCL-NOS has currently no impact on clinical management, the situation could change in the near future with the introduction of new therapeutic approaches and development of targeted interventions.