PET/CT RESPONSE ANALYSIS IN PRIMARY MEDIASTINAL DIFFUSE LARGE B-CELL LYMPHOMA (PMLBCL):
RESULTS OF THE IELSG-26 STUDY


* Department of Nuclear Medicine and PET/CT Centre Oncology Institute of Southern Switzerland (IOSI) - Bellinzona (CH) On behalf of the International Extranodal Lymphoma Study Group (IELSG), the Fondazione Italiana Linfomi (FIL) and the UK NCRI Lymphoma Group
IELSG-26 study: AIM

The IELSG-26 study was designed to prospectively evaluate the clinical role of PET/CT after rituximab and anthracycline-containing immunochemotherapy (R-CHT) in patients with PMLBCL.
IELSG-26 study on the PET/CT response after R-chemotherapy in primary mediastinal (thymic) large B-cell lymphoma (PMLBCL)

125 PMLBCL enrolled

Baseline PET
(within 14 days before R-Chemo)

Full course of chemotherapy:
- R-CHOP 21
- R-CHOP 14
- R-MACOP-B
- R-VACOP-B

Final PET
(3-4 weeks after R-Chemo)

Consolidation RT
(according to local policy)

Follow-up

Interim PET suggested, not mandatory after half of planned R-Chemo

Post-RT PET at least 2 months after RT

Actually given to 92% of patients
IELSG-26 study: PET/CT response Criteria for final PET (at 3-4 weeks after R-Chemotherapy)

* **IHP criteria (Juweid et al. JCO 2007)**

Negative final PET: no residual uptake or minimal residual uptake ≤ MBP

* **Deauville criteria [5-point visual analysis scale] (Leuk Lymphoma 2009)**

1. No uptake.
2. Uptake ≤ mediastinum.
3. Uptake > mediastinum but ≤ liver.
4. Uptake moderately more than liver uptake, at any site.
5. Markedly increased uptake at any site and new disease sites

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<th>2</th>
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<tr>
<td>negative</td>
<td>positive</td>
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INTERNATIONAL EXTRANODAL LYMPHOMA STUDY GROUP
**IELSG-26 study: Preliminary results**

Post R-chemo PET interpretation - **blind central review**
115 /125 studies reviewed

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<td>Nr. of patients</td>
<td>12</td>
<td>42</td>
<td>27</td>
<td>24</td>
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<td>PD or relapse (median F.U. 34 months)</td>
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- **47%** (54 PET-) (95% CI 36-58)
- **53%** (61 PET+) (95% CI 42-64)
IELSG-26 study: Preliminary results

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<tr>
<th>Deauville score</th>
<th>Nr. of patients</th>
<th>NPV = 98%</th>
<th>MBP cut off</th>
<th>PPV = 15%</th>
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NPV = 99%

IELSG-26

INTERNATIONAL EXTRANODAL LYMPHOMA STUDY GROUP
IELSG-26 study: Preliminary results

IELSG-26 study: Kaplan-Meier estimates of progression-free survival in PMLBCL, according to the PET response defined using the liver uptake cut-off, at 3-4 weeks after immunochemotherapy.
IELSG-26 study: preliminary conclusions

1. with the MBP cut-point, the PET+ rate (Deauville score>2) after R-Chemo in PMLBCL was higher (53%) than in DLBCL or HL

2. >90% of pts are projected to be alive and progression-free at 5 years post treatment and a negative PET/CT after R-Chemo is significantly associated with a longer PFS.

3. pts with Deauville score 3 had a clinical outcome identical to those with score 1-2, suggesting that the liver uptake may represent a more appropriate cut-point for the definition of CR.

4. Pts with score 4 and 5 had a significantly worse PFS and OS

5. a negative PET after R-CHT may select a subgroup of patients who may not need consolidation RT (IELSG 37 study is ongoing)