121 | EARLY METABOLIC RESPONSE IN FOLLICULAR LYMPHOMA: A SUBSET ANALYSIS OF THE FOLL12 TRIAL BY THE FONDAZIONE ITALIANA LINFOMI (FIL)

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Background: A small but significant proportion of patients with Follicular Lymphoma (FL) shows an aggressive behavior. Among available prognostic tools the duration of response and metabolic response (MR) after completion of immunochemotherapy (ICT) (fPET) were confirmed with a strong correlation with both PFS and OS. So far, only few data are available to define the role of an earlier assessment of MR during the ICT in FL. In the FOLL12 randomized trial we evaluated the efficacy of a response adapted post induction management of patients with FL responding to initial ICT. In a significant proportion of patients, MR was also assessed during the administration of ICT as one of the admitted study procedures. We here show the details of early assessment of MR and its correlation with patient outcomes.

Methods: The FOLL12 trial enrolled treatment naïve adult patients with grade 1-3a, stage II-IV and a high tumor burden FL. Complete

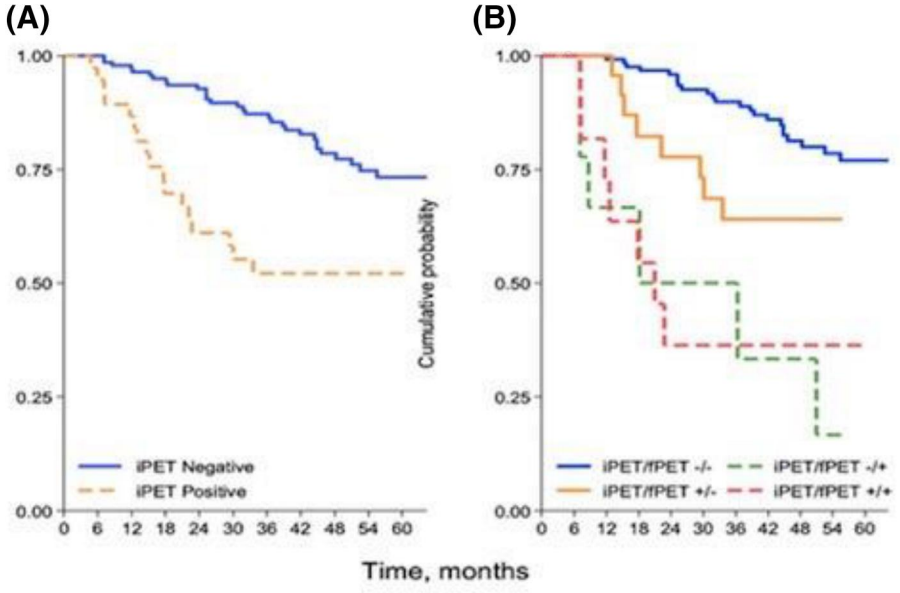

FIGURE 1 A)Progression free Survival(PFS) by interim metabolic evaluated with FDS-PETR at cycle 4 of induction therapy(iPET):B)PFS by iPET and metabolic response at end of indication PET(fPET)

metabolic response (CMR) was centrally assessed at End of Induction (EOI; fPET) using the 5-point Deauville scale (DS). In this study we included only patients for whom MR was also assessed during ICT between cycle 4 and 5 (iPET). iPET results were defined on the basis of the local report and were also centrally reviewed applying standard DS. The primary endpoint was 3-year Progression Free Survival (PFS).

Results: iPET was performed in 211/807 patients enrolled in the FOLL12 trial and local report was available in 186 cases. Forty-eight percent of patients were older than 60 years, 37% had a high-risk FLIPI2, 44% received BR as induction ICT. Based on local report iPET was considered positive in 38/186 patients (20%). iPET and fPET were both available for comparison in 174 cases and showed a concordance rate of 82%: 131 out of 140 iPET- confirmed their CMR at fPET (94%). Regarding the 31 iPET+, a fPET- was achieved in 23 cases (68%). In univariable analysis, the 3-year PFS was lower for the iPET+ patients compared to the iPET- (52% vs 87%: HR of 2.73 95% CI 1.51 – 4.95) (Fig 1A). Considering both iPET and fPET, a positive iPET was associated with an increased risk of progression also if a negative fPET was achieved (HR 2.09: 95% CI3.22 – 19.5) (Fig 1B). iPET was also associated with a different 3-year OS rate (99% vs 89% for iPET – vs +; p = 0.035). In multivariable analysis the prognostic role of iPET for PFS was confirmed (HR 2.60 (1.41 – 4.79) and was independent from FLIPI2 (0-2 vs 3-5 HR 1.88 (1.05 – 3.35)), and for ICT (RB vs R-CHOP (HR 1.39 (0.77 – 2.51)). The centralized review of iPET response according to DS is ongoing.

Conclusions: Interim metabolic response is confirmed with a strong prognostic role for PFS in patients with advanced stage FL treated with standard ICT. Considering the higher rates of iPET+ cases compared to fPET, iPET may better contribute to anticipate the identification of FL patients at different risk of progression and might be used to define a novel generation of response adapted trials in FL.

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122 | THE ROLE OF FDG-PET/CT AND BONE MARROW BIOPSY IN DETECTING BONE MARROW INVOLVEMENT IN THE INITIAL STAGING OF FOLLICULAR LYMPHOMA: AN ANALYSIS OF ACCURACY AND PROGNOSTIC IMPACT

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Introduction: In the workout of Follicular non-Hodgkin Lymphoma (FL), bone marrow assessment by bone marrow biopsy (BMB) is a key component of Follicular Lymphoma International Prognostic Index-2 (FLIPI-2) and progression of disease within 24 months of frontline FL chemoimmunotherapy initiation (POD24) models. Nevertheless, in several recent studies, positron emission tomography combined with computed tomography (PET/CT) identification of BMI was shown to be predictive of progression-free survival (PFS) and overall survival (OS)

Methods: To evaluate the independent value of BMB and/or PET/CT to determine bone marrow infiltration (BMI) and their prognostic impact, we have carried out a retrospective multicenter study including FL patients with both tests at diagnosis. The diagnosis accuracy and the prognosis impact for PFS and OS, and within FLIPI-2 and POD-24 models of each technique were analyzed. To avoid collinearity biases FLIPI-2 was deconstructed and its five parameters were considered independently. In addition, further adjustments were performed stratifying the whole series by treatment intensity and histologic grade.

Results: Three hundred two patients were included. Their median age was 58.3 years, and 50.3% (152 of 302) were female. One hundred sixty-one patients (53.3%) had stage IV disease (based on combined BMB and PET/CT results). The prognostic index scales, FLIPI and FLIPI-2, were low risk in 27.5% and 29.5%, respectively. Most patients had histological grade 1-2 disease (66.9%). The most common first-line chemotherapy regimen for advanced-stage patients was