TABLE 1 Characteristics of patients

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|---|---|
| Median age at allo-SCT (range) | 56 (32-70) |
| Donor type: | |
| - HLA-id sibling | 74 (55%) |
| - Matched unrelated | 29 (21%) |
| - Mismatch unrelated | 14 (10%) |
| - Haploidentical | 18 (13%) |
| Median donor age (range) | 46 (19-72) |
| ECOG at allo-SCT: | |
| - 0 | 74 (60%) |
| - 1 | 43 (35%) |
| - 2-4 | 6 (5%) |
| HCT-CI: | |
| - 0-1 | 70 (56%) |
| - 2 | 28 (23%) |
| - 3 or more | 26 (21%) |
| Status at allo-SCT: | |
| - CR | 86 (64%) |
| - PR | 35 (26%) |
| - SD/PD | 13 (10%) |
| Conditioning type: | |
| - Myeloablative | 20 (15%) |
| - Reduced intensity conditioning | 115 (85%) |
| Median months from diagnosis to allo-SCT (range) | 33 (3-164) |
| Previous ibrutinib | 19 (14%) |
| Previous rituximab maintenance | 6 (4%) |

**Methods**: We performed a retrospective multicenter study including patients from centers of GETH/GELTAMO with relapsed/refractory (R/R) MCL treated with allo-SCT from March 1995 to February 2020. The primary endpoints were event-free survival (EFS), overall survival (OS), NRM and cumulative incidence (CI) of relapse and graft versus host disease (GVHD).

**Results**: We included one-hundred and thirty-five patients with R/R MCL that fulfilled the inclusion criteria (Table 1). Median age was 56 years (27% >60 years); 49% had previous ASCT and median number of previous lines of therapy were 2 (1-8). Disease status at allo-SCT was complete response (CR) in 64%, partial response (PR) in 26% and stable/progressive disease (SD/PD) in 10%. Most patients (85%) received reduced intensity conditioning (RIC). After a median follow-up of 68 months (2-247), 5-year EFS and OS were 47% and 50%. NRM at day 100 and 5 years were 20% and 44%, respectively. Overall and CR rates on day 100 were 86% and 80%, respectively. The main causes of death were secondary to NRM: 32% GVHD, 32% infection, 3% veno-oclussive disease (VOD), 3% thrombotic microangiopathy and 15% others. Progression was the cause of death in only 14%. CI of relapse at 1 and 5 years were 9% and 16%, respectively. CI of grade 3-4 acute GVHD (aGVHD) at day 100 and moderate/severe chronic GVHD at 5 years were 29% and 42%, respectively. In the multivariate analysis we found the following independent factors: ECOG PS > 1 (HR 3.2; p = 0.017) and donor mismatch (HR 2.2; p = 0.007) for EFS; ECOG PS > 1 (HR 3.1; p = 0.018) and previous ASCT (HR 2.1; p = 0.004) for OS; and grade 3-4 aGVHD (RR 7.1; p < 0.001) for NRM.

**Conclusions**: Our data confirmed that allo-SCT may be a curative option in R/R MCL with low CI of relapse, although NRM is still high, mainly secondary to aGVHD. Results are better for fit patients, using HLA-identical donor (related or unrelated) and without previous ASCT. However, in the era of new immunotherapy and target drugs, allo-SCT should only be considered in selected patients failing these new approaches.

EA – previously submitted to EHA 2021.

Keywords: Aggressive B-cell non-Hodgkin lymphoma, Stem Cell Transplant

No conflicts of interest pertinent to the abstract.

## 145 | ATEZOLIZUMAB + OBINUTUZUMAB + VENETOCLAX IN PATIENTS WITH RELAPSED OR REFRACTORY MARGINAL ZONE LYMPHOMA: PRIMARY ANALYSIS OF A PHASE 2 TRIAL FROM LYSA

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**Introduction:** Relapsed and refractory (R/R) Marginal Zone Lymphomas (MZL) treatment remains challenging. Atezolizumab (ATE) and obinutuzumab (OBI) are monoclonal antibodies acting respectively to inhibit T-lymphocyte exhaustion or by inducing lymphoma cells cytotoxicity, whereas venetoclax (VEN) is a small molecule inhibiting BCL-2. Combining tumor-targeted therapies with agents that enhance anti-tumor immunity represents an attractive treatment paradigm. This LYSA sponsored multicenter phase 2 trial (NCT03276468) evaluated ATE, OBI and VEN combination in R/R B-cell lymphomas. Herein, we present primary efficacy and safety data from the MZL cohort.

**Methods:** Patients ≥18 years with biopsy-confirmed R/R MZL who failed at least one line of therapy were eligible. OBI was given IV at 1 g on day (D) 1, 8 and 15 of cycle (C) 1 and on D1 from C2 to C8 every 3 weeks. ATE was given IV, 1.2 g every 3 weeks, started at D2 of C1, then administered at D2 of each cycle for 24 cycles. VEN was given orally at 800 mg/D at full dose, starting on D8C1 for 24 cycles. The primary endpoint was the Overall Response Rate (ORR) evaluated by Cheson criteria (CT scan) at the end of induction (EOI) after 8 cycles of ATE, OBI and VEN (M6) or at premature treatment discontinuation.

**Results:** At the time of the primary analysis (08 Jan 2021), 20 MZL patients were enrolled, including 13 nodal MZL, 5 extra-nodal MZL (MALT) and 2 splenic MZL. The median follow-up was 11.9 months [0.7-23.6]. Thirteen patients completed induction phase and 11 patients started maintenance. Baseline characteristics were: median age, 69 years (52-83); male, 55.6%; Ann Arbor Stage IV, 100%; bone marrow infiltration, 38.9%; ≥ 2 extra-nodal sites, 50%; >2 prior lines of therapy, 22.2%; refractory to last line of prior regimen, 33.3%. The ORR at EOI was measured at 66.76% [44.6%-84.4%], including 16.7% of CR and 50.0% PR. Best of radiological response rate (BOR) was 77.8% [56.1%-92.0%] including 22.2% of CR. To date, these responses seem durable with only 3 reported relapses. Eleven patients (55%) received the full induction treatment. At the time of analysis, a median of 8 cycles [1-8] has been administered. A total of 14 (70%) pts experienced grade 3–4 adverse event (AE) and no patient experience an AE that led to discontinuation of any drug. AE of grade 3 or more reported in at least 10% of patients were neutropenia (55.0%), thrombocytopenia (20.0%) and anemia (10.0%). Of note, no patient experienced immune-related disorder during induction.

**Conclusion:** ATE, OBI and VEN combo appears to be well tolerated, with no unexpected toxicity brought by the combination. The ORR at EOI seems to be comparable to other innovative regiments in this setting, with durable responses to date.

The research was funded by: Roche, Abbvie

Keywords: Extranodal non-Hodgkin lymphoma, Indolent non-Hodgkin lymphoma, Combination Therapies

Conflicts of interests pertinent to the abstract

C. Herbaux
Consultant or advisory role: Roche, Abbvie
Honoraria: Roche, Abbvie
Educational grants: Roche, Abbvie

## 146 | ACALABRUTINIB MONOTHERAPY IN PATIENTS WITH RELAPSED/REFRACTORY MANTLE CELL LYMPHOMA: FINAL RESULTS FROM A PHASE 2 STUDY

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