under treatment (including 4 patients who received more than 10 cycles).

**Conclusion:** Obinutuzumab/ibrutinib combination has manageable safety profile and provides promising early clinical activity with high response rates in R/R MCL. Enrolment in step B (Obinutuzumab/ibrutinib/Venetoclax) started in October 2016. Three patients has been included in the first cohort (Venetoclax = 400 mg). Data regarding step B will be updated in the final presentation.

**Keywords:** mantle cell lymphoma (MCL)

214 RITUXIMAB MAINTENANCE AFTER AUTOLOGOUS STEM-CELL TRANSPLANTATION IN PATIENTS WITH MANTLE CELL LYMPHOMA, FINAL RESULT OF THE LyMa TRIAL CONDUCTED ON BEHALF THE LYSA GROUP

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Mantle cell lymphoma (MCL) accounts for approximately 6% of non-Hodgkin lymphoma (NHL) in adults. MCL commonly responds to initial therapy but inevitably patients relapse and response duration decreases from one salvage therapy to the next. Indeed, there is an urgent need to control and/or eradicate residual MCL cells that are responsible for early and late relapses. Maintenance with Rituximab (RM) after R-CHOP has been shown to prolong OS in elderly MCL patients treated with R-CHOP (Kluin-Nelmanns et al. NEJM). Induction with high-dose cytarabine followed by autologous stem-cell transplant (ASCT) consolidation is standard of care for young patients but RM after ASCT has never been investigated so far. The LyMa trial (ClinicalTrials.gov: NCT00921414) is a prospective international randomized phase III trial that investigated RM after ASCT in young previously untreated MCL patients. Patients were included at diagnosis (<66y; stage I, untreated, diagnosis of MCL according to WHO 2008 classification). Induction immuno-chemotherapy consisted of 4 courses of R-DHAP every 21 days (Rituximab, Dexamethasone, High-dose cytarabine, salt Platinum) followed by ASCT consolidation. Patients who were not in response (CR/Cru or PR) after R-DHAP received 4 additional courses of R-CHOP-14 before ASCT. The conditioning regimen for ASCT was R-BEAM. Patients in response after ASCT were randomized (1:1) between RM or no RM. RM consisted of one infusion of Rituximab (375 mg/m2) every 2 months for 3 years. The primary end point was event-free survival (EFS) calculated from time of randomization; events were defined as disease progression, relapse, death, severe infection or allergy to Rituximab. Progression-free survival (PFS) and overall survival (OS) from time of diagnosis and time of randomization were secondary end points. The interim analysis showed a trend for a longer EFS and PFS in favor of RM arm. (Le Gouill et al., ASH 2014, abs 146). Herein, we present the results of the final analysis.

**Results:** Two hundred and ninety-nine patients were enrolled from September 2008 to August 2012. Demographic and clinical characteristics of the patients were as followed: median age of 57y (27-65), 79% of male, MIPI-low in 53.2%, MIPI-I in 27.4% and MIPI-H in 19.4%. After inclusion, 277 patients completed the 4 courses of R-DHAP. The CR/Cru rate after R-DHAP was 77.3% and ORR was 89.3%. Twenty patients received R-CHOP. In all, 257 patients (including 12 patients who received R-DHAP/R-CHOP) underwent ASCT. After ASCT, 240 patients were randomized (RM, n = 120; no RM, n = 120). Median follow-up (mFU) from inclusion and from randomization were 54.4 m (52.7-59.2) and 50.2 m (46.5-54.2), respectively. The mPFS and mOS from inclusion in an intention to treat analysis were not reached; the 4y-PFS and OS were 67.8% (95%CI, 62.1 to 72.8) and 78% (95%CI; 72.8 to 82.3), respectively. According to EFS definition, 47 (39.2%) patients had an event in the no RM versus 25 (20.8%) in the RM arm. The mEFS from randomization was not reached in both arms. The 4y-EFS was 61.4% (95%CI; 51.3 to 69.9) in the no RM arm vs 78.9% (95%CI; 69.6 to 85.6) in the RM arm (p = 0.0012). The EFS duration was significantly superior in the RM arm with a 54.3% reduction in the risk of event (Hazard ratio (HR) = 0.457; 95%CI, 0.28 to 0.74; p = 0.0016). The per protocol analysis yielded similar results. In conclusion, the LyMa trial demonstrates for the first time that RM after ASCT prolongs EFS, PFS and OS. Thus, 4 courses of R-DHAP plus ASCT (without TBI) followed by RM maintenance (one infusion every 2 month for 3 years) is a new standard of care for young MCL patients.

**Keywords:** autologous stem-cell transplantation (ASCT); mantle cell lymphoma (MCL)