

## **Abstract: P1313**

### **Title: LOW DOSE RITUXIMAB FOR PRE-EMPTIVE TREATMENT OF EPSTEIN BARR VIRUS REACTIVATION AFTER ALLOGENIC HEMATOPOIETIC STEM CELL TRANSPLANTATION: A RETROSPECTIVE SINGLE-CENTER STUDY**

**Abstract Type: Poster Presentation**

**Session Title: Stem cell transplantation - Clinical**

#### **Background:**

Epstein–Barr Virus (EBV) reactivation and EBV-associated post-transplant lymphoproliferative disorders (PTLD) are common complication after allogenic hematopoietic stem cells transplantation (allo-HSCT). The preemptive treatment of EBV reactivations with the Rituximab (375 mg/m<sup>2</sup>) weekly have led to considerable improvements in outcomes, but may be associated with an increased long-term risk of infections. We performed a retrospective study of patients with EBV reactivations and PTLD receiving preemptive treatment with low dose Rituximab.

#### **Aims:**

The main objective was to evaluate the efficacy of low dose Rituximab for EBV reactivation after allo-HSCT.

#### **Methods:**

We retrospectively analyzed allo-HSCT patients with EBV reactivation and treated with low dose Rituximab in our hospital between March 2021 and December 2022. Only patients with detectable EBV-DNA and no symptoms were eligible for preemptive therapy. Patients with EBV-DNA >500 UI/ml have a reduction of immunosuppressive therapy if possible. Patients with persistent EBV-DNA >500 UI/ml or without possibility of reduction of immunosuppressive were treated preemptively with Rituximab (100 mg) weekly until EBV-DNA below 500 UI/ml.

#### **Results:**

We have included a total of 30 patients with EBV reactivation. The median age of patients was 37 (range, 16–65) years with 56.7% of male patients. Diagnoses were myeloid malignancies (53.3%) and lymphoid malignancies (46.7%). Donors were matched-related (3.3%) and haploidentical (96.7%) for the patients, respectively. Three patients (10.0%) underwent reduced-intensity conditioning regimen, while the remaining 27 patients (90.0%) received myeloablative conditioning regimen. Treatment with Rituximab was successful in 28/30 patients (93.3%). Two PTLD were diagnosed whereas EBV-DNA was decreased below 500 UI/ml. The median number of Rituximab infusions was 2 (range, 1–4).

#### **Summary/Conclusion:**

In this retrospective, monocentric study, the use of a low Rituximab dose (100 mg) for pre-emptive therapy of EBV reactivation post HSCT was efficient with a success rate over 93%. A prospective randomized multicentric trial with larger number of patients is needed to determine the best Rituximab dose.

**Keywords:** Hematopoietic cell transplantation, EBV