Abstract: P1334

Title: CURRENT USE OF DONOR LYMPHOCYTE INFUSIONS AFTER ALLOGENIC STEM CELL TRANSPLANTATION: A SURVEY ON BEHALF OF THE CELLULAR THERAPY AND IMMUNOBIOLOGY WORKING PARTY OF THE EBMT

Abstract Type: Poster Presentation

Topic: Stem cell transplantation - Clinical

Background:

Donor lymphocyte infusion (DLI) has become a frequently used practice to enhance the Graft-versus-Malignancy effect after allogeneic hematopoietic stem cell transplantation (HCT). Despite the routine use of DLI, no true consensus has been defined concerning indications, prerequisites, and application details.

Aims:

The Cellular therapy and Immunobiology Working Party (CTIWP) of the EBMT conducted a survey with the aim to describe center policies for DLI practices and to capture their diversity among centers.

Methods:

On January 2024, a questionnaire was sent to 461 EBMT centers, to collect the information on DLI practice across centers. Descriptive statistics were utilized to analyze the distribution of responses according to the questionnaire.

Results:

A total of 117 (25.4%) EBMT member centers active in 39 countries answered. Of them, 114 (97.4%) employ DLI in their own centers. DLI are used from all donor types. With respect to prerequisites for DLI, active graft-versus-host disease (GVHD) and/or active infection is considered absolute contraindications to start DLI for 91 (82.7%) and 57 (51.8%) centers, respectively. Prior history of acute (a)GVHD is not considered an exclusion criterion for DLI for 37 (33.6%) centers, while 18 (16.4%), 21(19.1%) and 29(26.4%) consider exclusion criteria prior aGVHD of any grade, grade II-IV and grade III-IV, respectively. For 78 (70.9%) centers immunosuppression withdrawal is regarded necessary before starting DLI. Cytopenia is not a reason for postponing the procedure in 80 (72.1%) of centers. As source of DLI, 80 (72%) centers collect DLI when clinically indicated after transplant with 63 (78.8%) of them collecting DLI through unstimulated and 16 (20.0%) through G-CSF stimulated apheresis. Whereas 37 of these 80 centers exclusively apply this strategy, 43 centers additionally reported to perform cryopreservation of small portions from the original G-CSF primed stem cell transplant in certain cases. Ten centers exclusively use cryopreserved portions from the original transplant. Accepted indications for DLI are preemptive (pre) for minimal residual disease (MRD) positivity in 96 (87.3%) centers, mixed chimerism in 93 (84.5%) centers, therapeutic (t) for hematological relapse in 88 (80.0%) centers, and prophylactic (pro) DLI for high-risk disease in 53 (48.2%) centers. ProDLIs are used more frequently in case of absence of complete remission/active disease at transplant (91.7%),unfavorable genetics (79.2%) and multiple lines of pre-treatment (39.6%). 31% of preDLI and 38.5% of tDLI use concomitant treatment of the underlying disease both in combination and sequentially, while 40.0% of proDLI reported no association with other treatments.

90.5% of centers indicated no use of immunosuppressive prophylaxis during the administration of DLI. An escalated dose regimen with a 0.5-log increase is used by 66.7% (for pro), 59.8% (for pre) and 56.8% (for t) of centers The minimum interval between HCT and first DLI is 3-5 months for 65.9%, 47.3%, 44.7% and the interval between two DLIs is 4-6 weeks for 56.5%, 73.6%, 65.4% for pro, pre, and tDLI, respectively. Disease recurrence monitoring is performed before each subsequent DLI in 78 (72.9%) centers. In the setting of preDLI, 73 (80.2%) reported the practice of stopping DLI infusion when MRD negativity was achieved.

Summary/Conclusion:

Overall, our data highlight a great variability in the administration practices of DLI among centers. These results are a first step towards understanding the critical issues and diversity in the use of DLIs in clinical practice, and will lay the basis for resolving open practical questions.

Keywords: DLI, Allogeneic hematopoietic stem cell transplant