LymphomaHub

PTCL

ASCO 2019 | Allo-SCT versus Auto-SCT as first-line consolidation in PTCL (AATT study)

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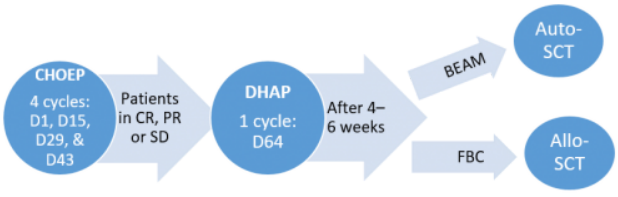
On Tuesday 4th June an oral abstract session took place at the 2019 American Society of Clinical Oncology (ASCO) Annual Meeting. During that session, Abstract 7503 was presented by Nobert Shmitz, University Hospital Münster, Münster, DE, on the final analysis of the AATT study (2007-001052-39), which was conducted by the French Lymphoma Study Association (LYSA) and the German Lymphoma Alliance (GLA). This trial compared the efficacy of allogeneic stem cell transplantation (allo-SCT) to autologous stem cell transplantation (Auto-SCT), as first line consolidation in patients with T-cell lymphomas.

Study design & baseline characteristics

- The study was designed to detect an improvement in the 3-year event-free survival (EFS) after allo-SCT from 35% to 60%, requiring 140 patients. As the interim analysis showed a low probability to detect the planned difference, the data safety monitoring committee stopped the study after 104 patients were accrued
- N = 103 patients with newly-diagnosed peripheral T-cell lymphoma (PTCL, not otherwise specified [NOS]), angioimmunoblastic T-cell lymphoma (AITL) and anaplastic large cell lymphoma (ALCL) ALK-negative, aged 18–60 years with an Eastern Cooperative Oncology Group (ECOG) performance status 0–3
- All patients received first-line treatment with four cycles of cyclophosphamide, doxorubicin, etoposide, vincristine, and prednisone (CHOEP; Days 1, 15, 29, and 43). Then, all patients except for the ones with progressive disease (PD) after first-line, received one cycle of dexamethasone, cytarabine, and cisplatin (DHAP). Then, patients in complete response (CR), partial response (PR), or stable disease (SD) received either carmustine, etoposide, cytarabine, and melphalan (BEAM) followed by auto-SCT (n = 54) or fludarabine, busulfan, and cyclophosphamide (FBC) followed by allo-SCT (n = 49; matched-related donor or unrelated donor)
- **Figure 1.** Study design (upfront randomization):



- Dosing:
  - BEAM:
    - Carmustine (BCNU): 300 mg/m^2

- Etoposide (VP-16): 800 mg/m^2
- Cytarabine (Ara-C): 1600 mg/m^2
- Melphalan: 140 mg/m^2

- FBC:
  - Fludarabine: 125 mg/m^2
  - Busulfan: 12mg/kg
  - Cyclophosphamide: 12 mg/kg

- **Table 1.** Key baseline characteristics:

Baseline characteristic	**Auto-SCT cohort (n = 54)**	**Allo-SCT cohort (n = 49)**	**Total cohort (N = 103)**
Median age (range)	50 (28–60)	50 (24–60)	50 (24–60)
Male patients	57%	69%	63%
ECOG > 1	20%	20%	20%
Disease stage III–IV	87%	90%	88%
Extranodal disease	59%	63%	61%

Disease diagnosis:			
PTCL, not-otherwise specified (NOS)	28%	31%	29%
AITL	33%	43%	38%
ALCL, ALK-negative	17%	11%	14%
Other TCL	24%	18%	21%

Key results

- Number of patients who completed study as per protocol:
  - Auto-SCT cohort: 63% (n = 34)
  - Allo-SCT cohort: 67% (n = 33)
- Number of patients who progressed during the study:
  - Auto-SCT cohort: 28% (n = 15)
  - Allo-SCT cohort: 29% (n = 14)
- Number of patients who discontinued study prior to SCT:
  - Auto-SCT cohort: 37% (n = 20)
  - Allo-SCT cohort: 33% (n = 16)
- **Table 2.** Key outcomes:

Response	**Auto-SCT cohort (n = 54)**	**Allo-SCT cohort (n = 49)**	**Total (N = 103)**
CR & unconfirmed CR (CRu)	39% (n = 21)	51% (n = 25)	45% (n = 46)

CR/CRu & PD within 2 months	2% (n = 1)	2% (n = 1)	2% (n = 2)
PR	17% (n = 9)	8% (n = 4)	13% (n = 13)
PD	33% (n = 18)	31% (n = 15)	32% (n = 33)
Unknown	6% (n = 3)	0% (n = 0)	3% (n = 3)
Treatment-related death	0% (n = 0)	8% (n = 4)	4% (n =4)

- In the intention-to-treat (ITT; N = 103) population:
  - Event-free survival (EFS) at 3 years, was:
    - Auto-SCT cohort: 38% (95% CI, 25–52)
    - Allo-SCT cohort: 43% (95% CI, 29–57)
    - $p = 0.58$
  - Overall survival (OS) at 3 years, was:
    - Auto-SCT cohort: 70% (95% CI, 57–82)
    - Allo-SCT cohort: 57% (95% CI, 43–71)
    - $p = 0.41$

Safety

- **Table 3.** Causes of death according to treatment cohort (ITT population):

Cause of death	**Auto-SCT cohort (n = 54)**	**Allo-SCT cohort (n = 49)**	**Total cohort (N = 103)**
Lymphoma	24%	22%	22%
Treatment-related mortality (TRM; study treatment only)	0%	16%	21%
TRM (salvage)	7%	4%	14%

Secondary neoplasia	2%	0%	3%
Total	33%	43%	45%

- **Table 4**. Causes of death *after* SCT:

Cause of death	**Auto-SCT cohort (n = 41)**	**Allo-SCT cohort (n = 26)**	**Total cohort (n = 58)**
Lymphoma (n)	7	1	8
Secondary neoplasia (n)	1	0	1
TRM (study treatment only) (n)	0	8	8
Total (n)	8	9	17

Conclusions

- No statistically significant differences were observed in EFS or OS between patients receiving auto-SCT or allo-SCT as consolidation after first-line chemotherapy for naïve PTCL
- Approximately 30% of patients were unable to receive SCT due to relapsed or refractory disease after first-line treatment
- The authors concluded that allo-SCT after front-line chemotherapy provides better tumor control but is counterbalanced by higher TRM. It should therefore be reserved for high-risk patients only

References

1. Shmitz N. *et al.* First-line therapy of T-cell lymphoma: Allogeneic or autologous transplantation for consolidation—Final results of the AATT study. Abstract #7503. 2019 ASCO Annual Meeting, Chicago, Illinois, USA