

ANTI T LYMPHOCYTE GLOBULINE FOR GRAFT VERSUS HOST PREVENTION IN REDUCED INTENSITY CONDITIONING TRANSPLANTS

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Anti-T-lymphocyte globulin (ATLG) is a standard component of Graft Versus Host Disease (GVHD) prophylaxis on the basis of prospective clinical trials, in which, however, most patients received myeloablative conditioning. Data in reduced intensity conditioning (RIC) are less numerous.

We report the clinical outcomes of 121 patients transplanted from 2019 to 2024 with RIC and CNI+MMF/MTX+ATLG as GVHD prophylaxis.

ATLG was administered at a total dose of 30 mg/kg (6 mg/kg/die) from day -6 to -2.

Median age was 63 years (IQR 56-67). The most common indications for allogeneic HSCT were acute myeloid leukemia (48%) and lymphomas (21.5%), other were chronic myeloproliferative neoplasms (16.5%), myelodysplastic neoplasms (7.4%), acute lymphoblastic leukemia (6.6%).

Donors were matched related in 6.6%, matched unrelated in 63.6%, mismatched unrelated (1 locus, 7/8) in 29.8%; all patients received PBSC as stem cell source.

At a median follow-up of 447 days, 47 patients (38.8%) developed acute GVHD (aGVHD), 35 (28.9%) grade II-IV and 10 (8.3%) grade III-IV aGVHD; 33 (27.3%) experienced chronic GVHD (cGVHD) and 24 (19.8%) moderate-severe cGVHD.

Cumulative incidence (C.I.) of grade II-IV and III-IV aGVHD were 27% (95% C.I. 18%-35%) and 6% (95% C.I. 3%-12%) at 100 days; 29% (95% C.I. 21%-37%) and 8% (95% C.I. 4%-14%) at 1 year and were significantly higher for mismatched unrelated donor (Gray test, $p=0.001$).

1-year C.I. of cGVHD and moderate-severe cGVHD were 27% (95% C.I. 19%-36%) and 20% (95% C.I. 13%-28%); 2-year C.I. of cGVHD and moderate-severe cGVHD were 29% (95% C.I. 22%-41%) and 22% (95% C.I. 14%-30%).

The incidence of relapse was 22% (95% C.I. 15%-30%) at 1 year and 25% (95% C.I. 17%-34%) at 2 years. Non relapse mortality was 12% (95% C.I. 7%-19%) at 1 year and 14% (95% C.I. 9%-21%) at 2 years.

These results are similar to those reported with PT-CY. Our hypothesis is that the early administration can be useful, in particular in RIC setting, where an increased risk of relapse can be foreseen. However, since prospective head-to-head comparison is not yet available, no definitive answer can be done at the moment.