Objectives: Allogeneic hematopoietic stem cell transplantation (HSCT) is an increasingly common treatment for malignant and non-malignant hematologic diseases. The major limitation to the realization of this type of transplant is access to an HLA-identical donor within the family. Only 30% of patients referred for transplantation will have an appropriate RD; using HLA-identical URD is an alternative for these patients. The aim of this study is to describe the first experience in Colombia with this type of transplant.

Materials and Methods: Observational case series.

Results: From July 1, 2011, have been 89 searches have been started. The most frequent diagnosis acute leukemia (47 ALL, 25 AML). Since there isn’t a national donors registry, searches were performed through NMDP. 26 matched-URD (10/10 or 9/10) were found (29.81%) and 14 transplants have been performed. 8 patients with an URD died before transplantation, 2 lost indication and 2 transplants are waiting.

The median time from the start of the search to finding the donor was 52 days (range 28-240) and once the donor was located it took a median of 67 days (range 36-94) to the infusion.

Transplanted patients were 7 males/7 females, mean age 20 years (2-59), 9 had AML, 3 ALL and 2 SAA. Most leukemias were in first CR (10). Donors were on the majority young (median 37 years; range 21-55), males (8), CMV positive. PBSC were used in 10 cases.

Busulfan-Fludarabine-ATG conditioning regimen was used for leukemia. GVHD prophylaxis consisted of Cs-MTX.

Survival: With a median follow up of 5.83 months (range: 0.86-17.9), 12 of the 14 patients are alive and in remission of their disease (OS 85.7%). One patient died from aGvHD complications and the other due to idiopathic pneumonitis. 2 of the 14 had grade III -IV aGVHD.

Conclusions: Allogeneic DNF is possible in Colombia and results are the same that would be expected for a similar population with RD. Low rates of success in finding an URD for our Hispanic patients reflects the fact that they represent a minority in world registries and highlight the need for the creation of local registries.

No-Myeloablative Conditioning Regimen Cyclophosphamide-Fludarabine-ATG (Cy-Flu-ATG) Results in Better Overall Survival Compared with Myeloablative Doses of Cy with or without ATG, in High-Risk Bone Marrow Failure Syndromes (BMFS) Patients

Virginina Abello1, Licet Villamizar1, Enrique Pedraza2, Carmen Rosales4, Manuel Rosales4, Javier Figueroa4, Iris Cordoba3, Adriana Linares5,6.

1 Unidad de Trasplante de Médula Ósea, Clinica de Marly, Bogota, Colombia; 2 Unidad de Trasplante de Médula Ósea, Clinica de Marly, Bogota, Colombia; 3 Unidad de Trasplante de Médula Ósea, Clinica de Marly, Bogota, Colombia; 4 Unidad de Trasplante de Médula Ósea, Clinica de Marly, Bogota, Colombia; 5 Unidad de Trasplante de Médula Ósea, Clinica de Marly, Bogotá, Colombia; 6 Clinica Marly, Bogota, Cundinamarca, Bogota

Allo-SCT from an HLA related or unrelated donor is the first line treatment for newly diagnosed patients with BMFS younger than 40 years, and for older patients that failed immunosuppressive therapy.

Cohort retrospective analysis of BMFS patients receiving Allo-SCT in a mixed pediatric-adult) transplant center in Bogota, Colombia, was performed to assess the influence of different conditioning regimens in outcomes. Log-rank tests (Lrt) analyses were used to determine the effects of age, conditioning regimen and year of treatment on survival.

Between January 1995 and August 2013, 96 transplants were performed in 89 patients (70 acquired SAA, 16 Fanconi Anemia, 2 pure red cell aplasia, 1 dyskeratosis congenita). 54 were males, mean age 25.8 years (range 4-60), mean time from diagnosis to transplant 26.2 months (range 2.1-143), 60% were heavily transfused. Most donors were HLA identical siblings (81 PBSC, 7 BM); 3 transplants from unrelated CBU, 2 from an haploidentical relative and 2 from an HLA identical URD. Conditioning regimens used were: RIC-Cy-Flu-ATG (41), Cy-ATG (35) and Cy (14). 6 patients were conditioned with Campath containing regimens and 2 with other. Before 2004 most patients received Cs and MTX as GVHD prophylaxis, after 2004 Cs and MMF was used in the majority.

2 patients died due to sepsis before engraftment could be evaluated. From the 87 evaluable patients, 5 had primary graft failure and 4 secondary graft failure. 7/9 patients with graft failure had a second transplant (5 from the same donor and 2 from an haploidentical relative). 6 of those 7 transplants engrafted and are alive. Non-myeloablative conditioning containing Fludarabine, resulted in less hospital stay compared to Cy-ATG and Cy alone (22.9, 32, 33 days respectively), less fever (1.7, 6.7, 7 days), less parenteral nutrition (0.1, 9, 4 days) and less red cells (2.4, 3.8, 3.8) and platelet (4.5, 7.5, 9.75) transfusions. Rates of GII-IV aGvHD were also less frequent for Cy-Flu-ATG group 8% compared to Cy-ATG (18%) or Cy (25%). Extensive cGvHD was reported in 11%, 6% and 25% respectively.

The median follow-up was 23.06 months (range: 7.06-62.6). Five-year overall survival (OS) was 69.23% for the entire group. RIC-Cy-Flu-ATG resulted in significantly better overall survival (85.7%) compared to other regimens (66.6% for Cy-ATG and 28.5% Cy (p=0.0016). There was no significant difference in survival related to age (p=0.96). There was superior survival for transplants performed after 2004 (n=64) compared with those before that year (n=25) (80.3 vs 43.3%, p=0.004).

This single center experience suggest significant overall survival advantage of RIC-Cy-Flu-ATG over other conditioning regimens in high-risk BMFS patients regardless the age. These results should be validated in prospective randomized studies.