Hospital Antônio Prudente (HAP), Fortaleza, CE, Brasil

Objective: To report the initial results of Autologous Hematopoietic Stem Cell Transplantation (A-HSCT) in the treatment of Hodgkin's Lymphoma (HL) performed in a private hospital center located in Fortaleza, Ceará, in the Brazilian Northeast. Material: Between February 2019 and July 2024, 126 A-HSCT were performed at the institution, 25 (20%) in patients diagnosed with HL. All cases were submitted for analysis. **Method:** Retrospective descriptive analysis of clinical data from the medical records of patients who underwent the procedure during the studied period. **Results:** 25 patients from 8 states underwent A-HSCT. Ceará with 14 cases (56%), followed by Pernambuco (03 cases, 12%) and Pará (03 cases, 12%) were the main referral locations. The median age was 29 years (16 to 64 years), with 15 patients being male (60%). The median number of previous chemotherapy protocols was 03 (02 to 07). Lomustine-based conditioning regimens (LEAM or LACE) were used in 60% of cases (15 patients), followed by carmustine (05 cases/20%) and bendamustine (04 cases/16%). The median of neutrophil engraftment was D+9 (D+8 to D+11) and of platelets on D+11 (D+9 to D+16), with the median days to hospital discharge being on D+15 (D+13 to D+20). In a median follow-up of 25-months (02–58-months), 22 patients are alive (88%), with a progression-free survival of 64%. The main causes of death were the toxicity of the conditioning regimen (02 cases/66.7%) and disease recurrence (01 case/33.3%). **Discussion:** The use of A-HSCT in the treatment of HL was associated with favorable clinical outcomes, in line with the literature, remaining a recommended strategy for patients after the second line of treatment, despite the continuous development of new therapies. Centers specialized in HSCT are still concentrated in more developed regions of the country, making this modality less accessible to patients outside the South-Southeast axis. Our transplant center operates in a private hospital institution that serves a population of patients predominantly from less favored regions, facilitating the accessibility of patients with HL to this treatment modality, especially from other states in the North and Northeast regions. **Conclusions:** The use of A-HSCT demonstrated adequate control of the disease, remaining an essential therapeutic option for patients with refractory/relapsed HL. The toxicity of the conditioning regimen still represents a challenge in this population previously exposed to various chemotherapy protocols.

https://doi.org/10.1016/j.htct.2024.09.1753

IMMUNOLOGICAL RECONSTITUTION IN PATIENTS WITH TYPE 1 DIABETES TREATED WITH AUTOLOGOUS HEMATOPOIETIC STEM CELL TRANSPLANTATION

PB Santis [a], MS Gonçalves [b], KM Farias [c], MC Oliveira [a]

[a] *Faculdade de Medicina de Ribeirão Preto (FMRP), Universidade de São Paulo (USP), Ribeirão Preto, SP, Brazil*
[b] *Fundação Hemocentro de Ribeirão Preto, Ribeirão Preto, SP, Brazil*
[c] *Faculdade de Ciências Farmacêuticas de Ribeirão Preto (FCFRP), Universidade de São Paulo (USP), Ribeirão Preto, SP, Brazil*

Objectives: Assess Cytotoxic, Helper and Regulatory T Cells (Treg) populations, before and after AHSCT in patients with T1D and to correlate with clinical outcomes. **Methods:** Peripheral Blood Mononuclear Cells collected from 11 T1D patients were analyzed by Flow Cytometry to identify T Cytotoxic (CD3+CD8+), T Helper (CD3+CD4+) and Treg populations (CD3+CD4+CD25+FOXP3+). Results were retrospectively correlated with the patients'clinical outcomes of short (under 3-years) and long insulin independence (over 3-years). **Results:** Most patients were male (54.5%) with a median age of 18.6-years (16–23). After transplantation, patients became independent of exogenous insulin and had an increase in peptide C levels for up to a year after AHSCT. Analyzing all patients, TCD8+ cells increased when comparing baseline, before AHSCT, to 60, 100, 270 and 360 days post treatment ($p < 0.01$). TCD4+ frequency was decreased at 60 ($p < 0.05$) and 100 ($p < 0.001$) days after AHSCT, when comparing baseline. The frequency of Tregs (CD4+ CD25+ Foxp3+) increased at 60-days post-AHSCT compared to baseline ($p < 0.05$) and decreased at 180-days from 60-days post treatment ($p < 0.05$). When analyzing insulin independence groups separately, it was observed that short-term independence patients had higher TCD8+ frequency in timepoints less than 6-months post transplant ($p < 0.05$), and lower TCD4+ frequency in the same time point ($p < 0.05$), compared to long-term patients. Also, long-term insulin independence patients had higher baseline Treg frequency ($p < 0.01$) and these levels maintained higher in periods up to 6-months ($p < 0.05$), compared to the short-term group. **Discussions:** When analyzing all patients, while there is an increase in T Cytotoxic lymphocyte populations in periods up to 6-months after transplantation, T Helper cells decrease at the same time points. Thus, our results demonstrate the dynamics of TCD4 and TCD8 cell reconstitution during the homeostatic proliferation period following profound lymphopenia caused by the conditioning regimen. Additionally, there is an increase in Treg frequency at early time points after the transplant, which may contribute to immune tolerance during the period of proliferation of residual or introduced cells in the graft. During studies based on the duration of insulin independence, we observed that long-term insulin-independent patients have a higher Treg frequency at baseline compared to short-term insulin-independent patients, suggesting that these patients might have a more tolerant initial immune system. The long-term group maintains higher Treg percentage in periods up to six months, which could contribute to the favorable clinical response. Also, long-term insulin-independent patients show less cytotoxic cells and more helper cells in periods less than 6-months, which may have contributed

to the clinical outcome, since T1D is mainly associated with a cytotoxic auto-reactive response. **Conclusions:** The results of this study corroborate with previous findings in regards to the immune system reconstitution after AHSCT. The better responding group have, in some time points, lower frequencies of TCD8+ cells, that mediate auto-reactive inflammation, and higher frequencies of Treg,known for promoting self-tolerance. This suggests that the clinical success of AHSCT for T1D, and potentially other autoimmune disorders, is related to the profile of the patients' reestablished immunity, emphasizing the importance of immunological monitoring studies.

https://doi.org/10.1016/j.htct.2024.09.1754

TRANSPLANTE ALOGÊNICO DE CÉLULAS TRONCO HEMATOPOIÉTICAS PARA O TRATAMENTO DE ANEMIA DE FANCONI EM FASE DE MIELODISPLASIA OU LEUCEMIA MIELOIDE AGUDA

GGF Landi [a], AM Rodrigues [a,b], AO Silva [a], G Loth [a,b], ACFC Salum [b], JP Trennepohl [b], S Nichele [b], LMM Gouvea [b], CK Dumke [a], C Bonfim [a,b,c]

[a] *Hospital Pequeno Príncipe (HPP), Curitiba, PR, Brasil*
[b] *Hospital de Clínicas, Universidade Federal do Paraná (CHC-UFPR), Curitiba, PR, Brasil*
[c] *Hospital Nossa Senhora das Graças, Curitiba, PR, Brasil*

Objetivos: Descrever o desfecho do transplante de células tronco hematopoiéticas (TCTH) em pacientes (pts) com anemia de fanconi (AF) que desenvolveram síndrome mielodisplásica (SMD) ou leucemia mieloide aguda (LMA). **Material e métodos:** Análise retrospectiva dos prontuários médicos dos pts com AF em fase de SMD/LMA que foram submetidos ao TCTH entre janeiro de 2012 e dezembro de 2023. **Resultados:** Foram analisados 35 pts, a maioria do sexo masculino (n = 20). A mediana de idade foi 17 anos (2–44 anos), sendo 51% menores de 18 anos (n = 17). Doze pts fizeram uso de andrógeno na fase de aplasia. Quinze pts foram transplantados com citopenia refratária (n = 15), seis pts com SMD com Excesso de Blastos tipo 1 (EB1); quatro com SMD tipo 2 (EB2) e dez com LMA. A maioria dos pts transplantados em fase avançada (SMD-EB2/LMA) recebeu esquema FLAG pré TMO (n = 12). Os doadores foram haploidênticos (n = 17), não aparentados (n = 11) e aparentados compatíveis (n = 7). Todos receberam medula óssea. Os regimes de condicionamento foram feitos com CY + FLU + TBI (NAP), FLU + TBI (Haplo). Quinze pts utilizaram seroterapia (ATG n = 10/Campath n = 5). Nenhum rejeitou. Nove pts tiveram recaída da doença após TCTH, com mediana de 240 dias (80–1691 dias). Seis pts foram retransplantados, 1 fez uso de azacitidina como manutenção pós transplante e 1 usou venetoclax, mas todos evoluíram para óbito. A mediana de follow-up foi 3,6 anos (14 dias–11,8 anos). A sobrevida global em 5 anos foi 51,4%. Dez pts morreram numa mediana de 138 dias após o TCTH (85–1102 dias) e 3 pts morreram durante o condicionamento. A sobrevida livre de recaída foi 67,3% e a SG em 5 anos para pts em fase avançada foi 32,4%, com taxa de recidiva em 5 anos de 25%. As causas de óbito foram infecção fúngica invasiva (n = 5), progressão da doença (n = 4), infecções (bacteriana/viral n = 3), DECHa (n = 2), neoplasia (n = 1) e toxicidade medicamentosa (n = 1). **Discussão:** A AF é a causa hereditária mais frequente de falência de medula óssea. A incidência de SMD é 11% a 34% e a de LMA é de 10% a 37%, com taxas de sobrevida após o TCTH de 57% e 36% respectivamente, inferiores se comparados aos pts com LMA não portadores de AF. A adolescência ou a idade adulta jovem são os períodos mais comuns de evolução clonal. O uso de andrógenos tem resposta hematológica em cerca de 80% dos pts e não tem associação com evolução clonal, conforme a literatura. Neste estudo, quase a metade dos pacientes tinham mais de 18 anos e a SG foi semelhante às publicações anteriores (SG em 5 anos: 42%). O tratamento de pts com SMD e LMA tem altas taxas de recaída, pois os pts não toleram quimioterapia intensiva além da quimio resistência intrínseca. O esquema FLAG pré TCTH usa quimioterapia de baixa intensidade e a taxa de recidiva nesta população foi inferior à descrita na literatura (taxa de recidiva em 5 anos: 40%). As infecções fúngicas invasivas são uma preocupação devido à grande mortalidade associada. **Conclusão:** A AF continua sendo um desafio, devido ao alto risco de neoplasias secundárias. Mas estes resultados indicam que apesar do TCTH ser a única opção com possibilidade curativa para falência de medula óssea, a morte por infecção e recaída permanecem um grande problema. Mais estudos são necessários para determinar o melhor regime de condicionamento ou terapêutica de manutenção e profilática pós TCTH.

https://doi.org/10.1016/j.htct.2024.09.1755

NEUTROPENIA ÉTNICA BENIGNA APÓS TRANSPLANTE ALOGÊNICO DE MEDULA ÓSSEA

LP Menezes, CS Sabaini, PMS Sabaini, MFV Esteves, GMN Barros, GS Lucena, RS Melo

Hospital de Amor de Barretos, Barretos, SP, Brasil

Introdução: A neutropenia é uma alteração laboratorial comum de ser encontrada após TMO alogênico e as possíveis causas associadas incluem: falha de enxertia, infecções, DECH, recidiva de doença de base e mielotoxicidade. Dentre os possíveis diagnósticos diferenciais para neutropenia sustentada que não explicada pelos fatores mais frequentes está a neutropenia étnica benigna. Os presentes relatos objetivam apresentar casos de diagnósticos de neutropenia étnica