dia, ocorrendo suspensão completa no dia +57. Durante a internação, a paciente apresentou episódios de dor abdominal intensa, epigástrica, relacionada principalmente com a dieta, associada a diarreia, necessitando internação em UTI pediátrica por 26 dias para controle da dor, período em que recebeu morfina, metadona, cetamina e clonidina, e substituição da dieta enteral para fórmula de aminoácidos livres. A pesquisa de patógenos fecais foi negativa. Exames de imagem demonstraram pneumatose intestinal colônica, sem evidências de perfuração e atribuída ao uso de corticoide, ausência de alterações pancreáticas, e com exame endoscópico evidenciando gastrite hemorrágica de fundo gástrico. Foi otimizado o tratamento com inibidor de bomba de prótons, com aumento de dose do omeprazol para 2 mg/kg/dia; entretanto, porém sem melhora dos quadros álgicos e da diarreia. Diante deste quadro, foi solicitado pesquisa de gordura fecal, com resultado negativo, e quantificação de elastase fecal, com resultado abaixo do valor esperado (36,0 ug/g; referência normal: maior ou igual a 200 ug/g). Diante dessa situação, foi iniciada terapia de reposição de enzimas pancreáticas (TREP), com a paciente evoluindo com redução da frequência e intensidade dos episódios álgicos, acompanhada de redução da analgesia, boa aceitação de dieta, e resolução da diarreia. Paciente recebeu alta hospitalar em fevereiro de 2025, assintomática. Em abril de 2025, após a suspensão da TREP, reiniciou diarreia e dor abdominal, com resolução completa da sintomatologia após sua reintrodução. Até agosto de 2025, a paciente não apresentou novos episódios semelhantes ao relatado. **Conclusão:** Estudos demonstraram a ocorrência IPE tardiamente no TCTH, geralmente associada à atrofia pancreática, que pode ser secundária à toxicidade medicamentosa, infecções virais e DECH crônico. No caso relatado, houve uma apresentação precoce e atípica, com dor abdominal e diarreia, pesquisa de gordura fecal negativa e sem alterações pancreáticas em exames de imagem, mas com elastase fecal bastante reduzida. Assim, reforçamos a importância de considerar IPE como diagnóstico diferencial de quadros de dor abdominal de etiologia incerta associada a diarreia, mesmo em casos de pesquisa de gordura fecal negativa, independente do período pós-transplante.

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JOINT USE OF SOLE, CALCINEURIN INHIBITOR-FREE GRAFT-VERSUS-HOST DISEASE PROPHYLAXIS WITH RABBIT ATG AND POSTTRANSPLANT IMMUNOSUPPRESSION WITH CYCLOPHOSPHAMIDE FOR HLA-MATCHED, PERIPHERAL BLOOD TRANSPLANTATION – THE NCT06299462 JURASSIC TRIAL

LJ Arcuri [a], S Maradei [b], M Roque [b], EH Atta [b], S Lermontov [b], CO Ribeiro [b]

[a] *Hospital Israelita Albert Einstein, São Paulo, SP, Brazil*

[b] *Instituto Nacional de Câncer, Rio de Janeiro, RJ, Brazil*

Introduction: A phase III trial showed that sole posttransplant cyclophosphamide (PTCy) is feasible in HLA-matched bone marrow (BM) hematopoietic cell transplants (HCT) but leads to high graft-versus-host disease (GVHD) rates with peripheral blood grafts (PBSC). We hypothesized that adding low-dose ATG could reduce GVHD. **Aim:** Assess the feasibility of HLA-matched PBSC HCT using only ATG and PTCy, without calcineurin inhibitors, sirolimus, or antimetabolites for GVHD prophylaxis. **Material and methods:** Prospective, single-center phase I/II trial (NCT06299462) involving patients aged 18–60 years with acute leukemia in CR1/CR2, myelodysplasia with less than 20% blasts, or lymphoma; HLA 8/8 donor; PBSC graft. Exclusion: liver dysfunction. Primary endpoint: grades III–IV acute GVHD. ATG 4–5 mg/kg was given before HCT, and PTCy 50 mg/kg on days +3 and +4. No other GVHD prophylaxis was used. Minimum follow-up was 3 months, ensuring all patients were eligible for acute GVHD assessment. **Results:** Ten patients were enrolled; six received myeloablative conditioning, and four received reduced-intensity conditioning. All engrafted; one experienced secondary graft failure amid a cluster of failures under investigation. Early after infusion, 40% developed grade 3–4 CRS, all of which responded to treatment. Three patients developed grade II acute GVHD, all steroid-responsive: one after donor lymphocyte infusion (DLI) for immune reconstitution, another after protocol violation (CD34 dose 6.7×10^6/kg). One patient died from mesenteric thrombosis, while another with refractory Hodgkin lymphoma experienced disease progression; all others are alive in complete remission. One DLI-treated patient developed moderate, steroid-refractory chronic GVHD, now managed with sirolimus. Six-month overall survival (OS) and progression-free survival (PFS) were 100% and 83%. CMV reactivation occurred in 80%, without CMV disease. Three patients experienced hemorrhagic cystitis (one grade 2, two grades 3–4). At 6 months, median CD4+ and B-cell counts were 225/mm^3 and 135/mm^3, respectively. **Discussion and conclusion:** This ATG+PTCy-only regimen for HLA 8/8 PBSC HCT was feasible, with no grades III–IV acute GVHD. Avoiding calcineurin inhibitors may lower toxicity and expenses (> R$25,000 for tacrolimus and monitoring over 3 months), potentially allowing resources to be redirected to patient care. Despite frequent viral reactivations, immune reconstitution was adequate at 6 months. Letermovir and tocilizumab were unavailable; CRS cases were managed with high-dose dexamethasone, which may have contributed to viral reactivations. Strategies to address CRS and viral reactivation are in development, and we plan to move to phase II of the trial soon. These early results support the potential of sole ATG +PTCy prophylaxis in HLA 8/8 PBSC HCT.

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LEUKEMIA STEM CELLS AND MEASURABLE RESIDUAL DISEASE IN PATIENTS WITH ACUTE MYELOID LEUKEMIA UNDERGOING ALLOGENEIC BONE MARROW TRANSPLANTATION

MdS Barbosa, AJ Simione, CM Bertolucci, FR Barbieri, AR Severino, I Colturato, JFdS Tosi, MP Souza, VAR Colturato, MRV Ikoma-Colturato

Hospital Dr. Amaral Carvalho, Jaú, SP, Brazil

Introduction: Measurable residual disease (MRD) is predictive of relapse in acute myeloid leukemia (AML), including in the pre-stem cell transplant (SCT) setting. The presence of leukemia stem cells (LSCs) has been shown as another predictor of outcome in addition to MRD status. **Aim:** this study aims to assess the presence of LSC in association with MRD results and its impact on the survival of AML patients undergoing SCT. **Material and methods:** Patients, material and methods: One hundred and eleven patients with AML were retrospectively evaluated before SCT and 89 after SCT. The median age was 37 years (5-63), 47% were female, and 82 (91%) had de novo AML. The 2022 ELN risk classification was: 32% adverse, 28% intermediate, 4% favourable, and 36% with missing data. Clinical remission status was: CR1(52%), CR2(31%), ≥ CR3 (17%). The conditioning regimen were myeloablative (MAC) (59%) and reduced intensity (RIC)(41%). MRD was assessed before and after SCT using an analytically and clinically validated 10-color panel that combined backbone markers (CD33, CD34, CD38, CD 45, CD117 and HLA-DR) with markers such as CD2, CD7, CD11b, CD13, CD14, CD15, CD19, CD36, CD56, CD123, CD300e. LSC immunophenotypes (CD34+/CD38-) were identified using markers such as CD45RA, CD54, CD96, CD97, CD99, CD244, CLL1/TIM3. Samples were acquired on a BDFACSLyric flow cytometer and Infinicyt (Cytognos)TM was used for flow data analysis. At least 1 million events were evaluated per tube to achieve adequate test sensitivity. R-software v 4.1 was used for statistical analysis. The Kaplan-Meier method was used to assess overall survival (OS) and relapse-free survival (RFS). The log-rank test was used to compare the survival distributions of two or more groups. **Results:** In the pre-SCT setting, the 2-year OS and RFS of the patients were, respectively, 89% and 91% for the MRD-/LSC- group (n = 44); 66% and 66% for MRD-/LSC+ (n = 3); 63% and 53% for MRD+/LSC- (n = 49); 42% and 45% for MRD+/LSC+ (n = 15) ($p < 0.001$ and $p < 0.005$ respectively). In the post-SCT setting, OS and RFS at 2 years were, respectively, 90% and 92% for MRD-/LSC- (n = 37); 100% and 89% for MRD-/LSC+ (n = 9); 75.2% and 66% for MRD+/LSC- (n = 36); 57% and 57% for MRD+/LSC+ (n = 7) ($p = 0.001$ and $p = 0.007$ respectively). **Discussion and conclusion:** Patients with MRD-/LSC- had significantly longer OS and PFS than the other groups both pre- ($p = 0.001$) and post-SCT($p = 0.009$). MRD+/LSC+ characterized the group with the worst outcome. However, the MRD+/LSC- and MRD-/LSC+ groups presented intermediate overall survival and progression-free survival compared to the other groups, and presented similar outcomes both pre- and post-SCT. A shorter OS was observed in MRD+/LSC+ patients compared to MRD +/LSC- patients pre-SCT ($p = 0.02$), but this analysis was hampered by the small number of patients in this group (n=3). In the MRD+ patient groups, OS and RFS were higher in the LSC- group than in the LSC+ group ($p = 0.009$ and $p = 0.024$ respectively) in the post-SCT setting. These findings show the relevance of the presence of LSC in the bone marrow of patients with AML and are in agreement with some data in the literature. Although the number of AML patients and LSC+ in this cohort is small to allow a more robust evaluation, these preliminary data contributed to highlight the importance of detecting LSC in the follow-up of these patients.

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LIGASE IV SYNDROME IN A 7-YEAR-OLD BOY: CLINICAL, MOLECULAR, AND TRANSPLANTATION ASPECTS OF A RARE IMMUNODEFICIENCY DISORDER

W Rocha [a], RB Gritte [b], GP Zanon [c], EP Medina [a], MHTV Wey [a]

[a] *Hospital Infantil Gonzaga, Santos, SP, Brazil*
[b] *Universidade do Oeste Paulista, Guarujá, SP, Brazil*
[c] *Centro Universitário Lusíadas, Santos, SP, Brazil*

Introduction: Ligase IV Syndrome (LIG4) is an extremely rare autosomal recessive disorder arising from mutations in the LIG4 gene, which encodes DNA ligase IV, a crucial component of the non-homologous end-joining (NHEJ) pathway responsible for repairing double-strand breaks (DSBs) in DNA. **Case report:** The patient is a male child, born on July 11, 2017, diagnosed with constitutional severe aplastic anemia secondary to a LIG4 gene mutation, confirmed through genetic testing. This rare autosomal recessive condition is classified under ICD D61.0 and is associated with defective DNA repair mechanisms and immunodeficiency disorders. Over recent months, he has required monthly transfusions of red blood cells and platelets and exhibited persistent severe neutropenia (< 500 neutrophils/μL), increasing his susceptibility to opportunistic and severe infections. The clinical and laboratory findings, consistent with bone marrow failure, led to the recommendation of allogeneic hematopoietic stem cell transplantation (HSCT), the only potentially curative treatment in LIG4 deficiency. Between January and February 2025, the patient was admitted several times to Hospital Infantil Gonzaga for neutropenia-associated bacterial infections and transfusional support. Episodes of febrile neutropenia were managed with broad-spectrum antibiotics, including intravenous vancomycin and meropenem, with good clinical response. No allergies