Introdução: O estado nutricional do paciente está diretamente ligado no tratamento proposto, dessa forma a avaliação nutricional pré e acompanhamento nutricional pós-transplante de células-tronco hematopoiéticas é essencial e influencia diretamente na qualidade de vida do paciente. **Objetivos:** Descrever o estado nutricional pré e pós TCTH prevalente de crianças submetidas a TCTH. **Material e métodos:** Incluiu-se no estudo pacientes pediátricos submetidos a transplante de células-tronco hematopoiéticas internados em um hospital particular de São Paulo. Trata-se de um estudo retrospectivo com 13 pacientes que realizaram TCTH entre janeiro a julho de 2025 com tempo médio de internação de 49 dias. Os dados foram obtidos através de prontuário eletrônico. O estado nutricional foi classificado conforme a circunferência do braço (CB) e avaliado no período pré TCTH e pós TCTH. **Resultados:** A média de idade foi 8 anos, sendo prevalente pacientes com diagnóstico prévio de meduloblastoma (30,7%), seguido por leucemia mieloide aguda (23,1%), Anemia falciforme (15,4%), anemia de Fanconi (7,7%), síndrome de Wiskott-Aldrich (7,7%), linfo-histiocitose hemofagocítica (7,7%) e mielofibrose (7,7%). Predominou-se TCTH do tipo alogênico não aparentado (46,1%) em detrimento ao alogênico aparentado (23,2%) e autólogo (30,7%). Predominou-se no período pré TMO o estado nutricional de pacientes com eutrofia (61,5%), desnutrição moderada (23,1%) e seguido por desnutrição grave (15,4%). No período pós TMO predominou-se pacientes com eutrofia (54%), desnutrição moderada (38%) e desnutrição grave (8%). Apenas 2 pacientes modificaram a classificação do estado nutricional durante o período avaliado e evoluiu com mudança de estado nutricional. Desses 2 pacientes, 1 passou do quadro de eutrofia para o quadro de desnutrição grave e 1 passou do quadro de desnutrição grave para o quadro de desnutrição moderada. **Discussão e conclusão:** A maioria dos pacientes não modificaram o estado nutricional, devido triagem nutricional precoce, acompanhamento nutricional diário durante a internação, avaliação e aconselhamento nutricional ambulatorial pré TCTH com intervenção nutricional precocemente. A maioria dos pacientes que fizeram TCTH apresentavam estado nutricional de eutrofia tanto no período pré TCTH quanto pós TCTH, sem alterações de classificação nesse período. Sugere-se uma avaliação mais ampla para detecção do real estado nutricional destes pacientes. **Palavras-chave:** Transplante de Células-Tronco Hematopoéticas; Estado nutricional; Terapia nutricional.

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EXPERIENCE WITH AUTOLOGOUS PERIPHERAL BLOOD STEM CELL (PBSC) COLLECTION AND TRANSPLANTATION (HSCT) IN CHILDREN WEIGHTING 25 KG OR LESS

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Introduction: The collection of autologous PBSC from small children may be challenging, especially to professionals proficient in adult Hematology and Hemotherapy. The reason for these autologous collections, now go beyond HSCT, also including therapy with CAR-T cells. Over 26 years of activity and over 1,000 transplants in children and adolescents, approximately 28% were performed in children weighting 25 kg or less. **Aim:** The objective of this study is to report the experience of autologous HSCT in patients weighing 25 kg or less. **Material and methods:** This is a review of the Laboratory forms and electronic medical records of all transplants performed between Dec,99 and July,25. The PBSC were collected by apheresis through a central venous catheter using the COBE Spectra® with ACD-A, 1:15 ratio, processing around 6 blood volumes. The procedures were repeated until 5×10^6 CD34+ cells/kg were collected. As of 2012, the target dose was tripled for patients undergoing tandem HSCT. The priming used irradiated and leukocyte poor red blood cells, filtered and resuspended in Normal Saline. During the apheresis, the patients received IV Na, K, Ca, Mg. As of 2016, the PBSC were collected by Spectra Optia®, ACD-A 1:12-1:15 depending on the duration of the procedure, platelet count, and outlet flow. The number of blood volumes was calculated based on the targeted CD34+ and the number on the peripheral blood on the day of the collection. The cells were cryopreserved with a final solution HAES 6%, albumin 4%, and DMSO 5%, and stored in an ultrafreezer. On the day of the infusion, a water bath 37° C was used for thawing the cells in the laboratory, where the quality control samples were drawn. DMSO was initially removed in children < 25 kg, with renal or heart failure, and infusions with > 1g/DMSO/kg using Rubinstein's protocol with a 1:1 dilution in a dextran-albumin solution 5% at 4°C. Quality control samples were obtained and it was centrifuged at 400 g, 4°C for 20 min. The buffy coat was resuspended in the same solution and sent to the floor for infusion. In 2018, patient had DMSO removed if < 15 kg and as of October 2021 weight was no longer considered a criterion, only the presence of comorbidities. **Results:** A total of 171 transplants were performed in 129 patients weighting < 25 kg: simple thawing in 65 transplants and 106 with DMSO removal. The conditioning regimens were used according to the underlying diseases: 24 Bu-Mel, 21 Carbo-Thiotepa (TT), 7 Carbo-VP-TT, 12 CEM, 62 CEM-TT, 2 CTX-Mel, 1 Temodal-TT-Carbo. No patient had graft failure and 72% are alive. **Discussion and conclusion:** Leukoaphereses in our service were performed safely, even large volume procedures. The protocol we propose for children < 25 kg include priming with packed red blood cells, infusion of electrolytes during the procedure and continuous monitoring of the patients. Autologous transplantation is safe and feasible in these children.

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