

dimer levels and faster production of Thrombin after two years of clinical event. No association was found among Lp (a) and PAI-1 or plasmin generation. These results suggest that hypercoagulability may be implicated in the association among Lp (a) and unprovoked DVT patients, but not hypofibrinolysis.

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TRANSPLANTES DE MEDULA ÓSSEA E TERAPIA CELULAR

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TRANSPLANTE E SUAS MULTIFACETAS: RELATO DE EXPERIÊNCIA DAS RESIDENTES EM UMA UNIDADE ESPECIALIZADA

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Introdução: Para além do que se pensa, o Transplante de Células Tronco Hematopoiéticas (TCTH) é um procedimento complexo e que requer uma atuação multiprofissional. O transplante de célula-tronco hematopoiética é utilizado como forma de tratamento para doenças malignas e consiste na infusão intravenosa destas células com a finalidade de reconstituir a função medular e imune de pacientes no tratamento de doenças hematológicas, oncológicas, hereditárias e imunológicas. Esse processo é dividido em cinco etapas, sendo elas: preparação pré-transplante, regime de condicionamento, coleta das CTH, infusão, período da pega. Visto que, todas essas etapas foram acompanhadas pelas residentes. Para além disso, as complicações agudas do TCTH podem se manifestar em até cem dias, sendo, sobretudo, importante o conhecimento do enfermeiro sobre as possíveis complicações para prevenção e detecção precoce. Sendo as principais complicações: infecções, Doença Venoso-Oclusiva (VOD), Doença do Enxerto Contra o Hospedeiro (DECH), mucosite, náuseas, vômitos, diarreia, alterações hematológicas e complicações pulmonares. Portanto, por ser uma unidade de internação e de caráter ambulatorial pode-se acompanhar os casos de retorno de pacientes por conta das consultas de rotina e complicações pós-transplantes. **Objetivo:** O estudo objetivou-se em descrever a vivência das Residentes de enfermagem em uma unidade especializada em Transplantes. **Metodologia:** Trata-se de um relato de experiência das residentes, que atuaram na unidade de internação para TCTH, durante o mês de Setembro de 2022, no período do dia 01/09/2022 ao 30/09/2022, em um Instituto Nacional de referência oncológica no Rio de Janeiro, além de revisão bibliográfica sobre a temática. **Resultados:** Durante o período que estivemos na unidade especializada, conseguimos acompanhar os diversos desdobramentos de um TCTH. Inicialmente fomos inseridas na equipe de enfermagem, sendo acompanhadas pelos enfermeiros do setor. Desenvolvemos atividades no ambulatório, na manutenção dos cateteres e coleta de sangue. Atuamos também, no preparo de medicações, na assistência à

beira leito, na coleta de células sanguíneas e no momento da infusão das mesmas, ou seja, todo processo que engloba as fases do TCTH. **Conclusão:** Contudo, a vivência na unidade especializada nos permitiu ainda como residentes do primeiro ano, refletir sobre o quanto esse processo de TCTH é complexo e dinâmico, que por sua vez, tem uma terapêutica medicamentosa acentuada, em função da toxicidade e dos eventos adversos. Sendo imprescindível, a atuação de profissionais de enfermagem com conhecimentos científicos e capacitados para realizar estes métodos, possibilitando a melhorado indivíduo.

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UTILIZATION OF STORED PERIPHERAL BLOOD STEM CELLS TO SUPPORT SECOND HEMATOPOIETIC STEM CELL TRANSPLANTATION

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Aim: Hematopoietic Stem Cell Transplantation (HSCT) is used to treat or cure a wide spectrum of conditions. Cryopreservation maintains the therapeutic properties of Peripheral Blood Stem Cells (PBSC), allowing clinical, regulatory, and logistical procedures needed for successful HSCT. Complications of mobilizing and collecting additional PBSC following recovery from the myeloablative HSCT have led centers to adopt the practice of collection and storage of enough PBSC for two HSCTs. However, the collection, cryopreservation, and storage of extra PBSC than that needed for a single HSCT have logistical, infrastructure, and cost issues. Here, we evaluated the collection, storage, and utilization practices of PBSC for two or more HSCTs. **Methods:** This cross-sectional study included patients referred for HSCT at eight transplant centers. Cryopreservation, storage, and other laboratory procedures were conducted at Cetebio/Fundação Hemominas between 2013 and 2022. Frozen cells were stored in the vapor phase of nitrogen. The records were reviewed to obtain information regarding the patients and frozen cell therapy products. **Results:** Cetebio released frozen PBSC for 1,311 transplantations between 2013 and 2022. Two hundred fifty patients had 321 bags with residual PBSC in storage after their first HSCT (234 autologous and 16 allogeneic HSCT). Patients had a mean age of 49.6 ± 3.4 years, and most were male (162; 64.8%). Most (200; 80%) had Multiple Myeloma (MM), followed by leukemia (18; 7.2%), Germ Cell Tumor (GCT, 14; 5.6%), and other diagnoses (18; 7.2%). Cells from 66 (26.4%), 163 (65.2%), and 21 (8.4%) patients were frozen 2 years or less ago, 2.1 to 7 years ago, and more than 7 years ago, respectively. Thirty-three bags from 24 (9.6%) patients were released for a second HSCT within a median of 2.2 years after the cryopreservation. The mean age of patients at the time of the second HSCT (23 autologous and one allogeneic transplantation) was 51.6 ± 14.4 years, ranging from 18 to 69 years. Most were male (15;

62.5%) and had MM (15; 62.5%) followed by GCT (5; 20.8%), leukemia (3; 12.5%), and myelodysplastic syndrome (1; 4.2%). The remaining 288 frozen bags continue stored at our facility and represent about a third of our tank storage capacity. The human, infrastructure, and economic resources required to cryopreserve and store unused PBSC are equivalent to the resources needed to attend nearly 144 extra patients. **Discussion:** The frequency of second transplantation was similar to previously published studies (9% to 19%). This study is limited by its retrospective design and the relatively short-term follow-up. Some frozen PBSCs will probably be released for a second HSCT in the future. Nevertheless, in public healthcare systems, resources should be used based on equity and effectiveness. Since most patients probably never undergo a second HSCT, our institution changed its practices regarding PBSC collection, cryopreservation, and storage to support the second HSCT. Currently, it is allowed only for diseases that benefit from tandem infusions. **Conclusions:** this study showed a low utilization of stored PBSC to support the second HSCT. The results suggest a review of practices regarding cryopreservation PBSCs for a second HSCT, especially in public healthcare system settings and places where novel agents and new therapeutic approaches for treatment of MM are available.

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EFFECT OF BONE MARROW HEMATOPOIETIC PROGENITOR CELLS CRYOPRESERVATION ON TRANSPLANTATION OUTCOMES

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Introduction: Knowledge of cryopreservation of Hematopoietic Progenitor Cells (HPC) collected by Bone Marrow aspiration (HPC,BM) is limited. **Aim:** To describe the experience of a Cell Processing Center with HPC,BM cryopreservation for therapeutic use, and to compare the BMT outcomes with non-cryopreserved historical controls. **Methods:** This is a nested case-control study. The casuistry consisted of 16 HPC,BM units cryopreserved between 2020 and 2022. The HPC,BM units were Red Blood Cells (RBC) depleted using Hydroxyethyl Starch (HES) 450/0.7, followed by centrifugation for volume reduction. The units were frozen in a mechanical freezer at -80°C after adding the cryopreservation solution (5% HES/ 5% DMSO) and stored in the LN₂ vapor phase. Data from patients whose HPC,BM unit was RBC depleted and freshly infused were used as historical controls. The control for one case of cryopreserved HPC,BM for autologous transplantation was one cryopreserved HPC,PB. Controls were matched to cases by diagnosis. **Results:** The mean age of cases was 29.4 ± 11.1 years. Nine (56.3%) patients were female. One (6.3%) unit was cryopreserved for autologous use and fifteen (93.8%) for unrelated allogeneic BMT. One (6.3%) patient had neuroblastoma, one (6.3%) SCID, one (6.3%) CML, three (18.8%) AML, one (6.3%) Griscelli syndrome, two (12.5%) Wiskott-Aldrich

syndrome and four (25%) ALL. Twelve (75%) units were released for therapeutic use, of which ten (83.3%) already have grafting data available. The mean time to neutrophil and platelet engraftment was 16.8 and 18.4 days, respectively. One (11.1%) patient had graft failure. There was no difference in time to neutrophil and platelet engraftment between cases and controls. Related to adverse effects during infusion, the frequency of nausea and hemoglobinuria was higher in controls (40% vs. 14.3%, respectively), while the frequency of hypertension was higher in cases (20% vs. 57.1%, respectively), although not significant. The occurrence of fever was significantly higher in controls when compared to cases (60% vs. 0%, $p = 0.045$). Although not significant, pseudomembranous colitis (0% vs. 25%, respectively) was more frequent in cases, while mucositis (50% vs. 12.5%, respectively) was more frequent in controls. Acute GVHD was not observed in cases and controls during the observational period. Cox regression analysis adjusted for age, sex, transplant center, and infused CD34+ cell dose showed no significant difference in the occurrence of death or grafting failure between cases and controls. **Discussion:** The higher frequency of fever in the controls can be explained by the fresh infusion of the product collected in an open system with frequently observed contamination. Cryopreservation allows clinical, regulatory, and logistical procedures, including cell therapy product quality control testing. Therefore, cryopreservation permits the identification and sensitivity of the microorganism in case of a positive test and the knowledge of results by the transplant staff. There was no difference in the other transplant outcomes when cases were compared with controls. However, the low number of individuals may have resulted in a lack of statistical power to detect associations, especially for variables with missing observations. **Conclusion:** This study indicates that HPC,BM cryopreservation was not associated with an increased occurrence of adverse effects during infusion, BMT complications, and graft failure or death.

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FLUXO DO TRANSPLANTE DE MEDULA ÓSSEA EM PACIENTES COM DOENÇA FALCIFORME E APRESENTAÇÃO DE CASOS: RELATO DE EXPERIÊNCIA

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Objetivos: Relatar a experiência sobre a organização e realização de palestras sobre o fluxo do processo de Transplante de Medula Óssea (TMO) alogênico em pacientes com doença falciforme da Fundação Hemominas (FH), e compreender os desafios enfrentados pela equipe. **Materiais e métodos:** O convite para as palestras foi realizado para os profissionais de todas as unidades da FH através do e-mail institucional e grupos de WhatsApp. Foi utilizado um formulário do Google Forms para inscrição dos interessados com informações sobre suas unidades, setores, função e telefone de contato. As