

MANAGEMENT OF RARE CLOTS FORMATION IN HPCA PRODUCTS DURING PRE-MANIPULATION PHASE AND THAWING

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Hematopoietic stem cells from apheresis are used in transplantation therapies, but they particularly in pre freezing stage and at patient bedside thawing are very sensitive at issues. We studied 2 advents of rare clots and approaching these to effectively understand the cause and provide a resolution.

Multiple Myeloma, collected by COBE Spectra, total dose 8,7 CD34/kg, TNC 3.9×10^8 /kg, Neut. 80%, 4 bags, after thawing numerous reds clots become evident. An inoculation of 5 %v/v of ACD was added to the product but without resolving the issue, then another 5% v/v of ACD was added that dissolved the clots. The enumeration of CD34 post thawing was good, the engraftment was successful.

Diffuse Large Cell Lymphoma, HPCA collection, total dose 17,5 CD34/kg, TNC 3.3x/kg, neut.46%, 4 bags, Overnight storage and before the manipulation, numerous white clots were visible in the bag, fast inoculation of 5 % of ACD and next filtration with blood filter system don't resolve the issue, was added additional 5% v/v of a ACD and the clots apparently dissolved.

MM patient, transplant therapy was completed, good engraftment (13 day Neutr./21-day PLT), at check of CD34 post thawed, the loss acceptability and 85% of viability and recovery.

Diffuse Large Cell Lymphoma case, the HPCA of second mobilization will be used; the nature of clots was WBC agglomerates discovered by observation of slides. No loss of CD34/kg and good viability, and no evidence of clots inside of final bag after filtration with blood filter were observed. The event is rare, 1/1500, (0.06%) clotting event at thawing was observed in 13 years of auto/allo transplant activity, while for clots pre freezing 1/215 (0.46%). The use of an emergency kit in case of clotting and clear procedure for use of bedside emergency kit, proved to be essential to have a quick and effective solution.