Immunomodulatory Effects of the Storage Process of Erythrocyte Suspensions

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- ✓ IMMUNOLOGY
- ✓ TRANSFUSİON
- ✓ TRIM
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- ✓ T CELL

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THESIS ABSTRACT

Peripheral blood mononuclear cells (PBMCs) were isolated from blood bags on days 0, 7, 14, 21 and 42 of storage. Proliferation, activation and viability of CD3+, CD4+ and CD8+ T cells were evaluated. In addition, CPD used for blood storage and SAG-M solutions on the viability of granulocytes and PCMNCs were examined.
After the 21st day, T cell viability decreased compared to the first days and increased above 90% on the 42nd day. The proliferation ability of T cells was found to be at its lowest level after the 14th day. CPD and SAG-M mixture increased the viability of PCMNCs and granulocytes at concentrations simulating transfusion.

APPLICATION AREAS OF THE THESIS RESULTS

These results indicate that T cell viability and proliferation decreased towards the end of the ES storage period. This occurs differently in each donor's blood. ES from donors has the potential to have different effects on recipients.

ACADEMIC ACTIVITIES

The Modulatory Effect of Storage Time of Red Blood Cell Concentrates on The T Lymphocytes (V. International Molecular Immunology and Immunogenetics Congress (MIMIC) 2022 Poster presentation)
Immunomodulatory effects of storage time and storage conditions of erythrocyte suspensions (XV. National Blood Centers and Transfusion Medicine Congress 2022 Oral Presentation)