EXPRESSION OF CXCR3 MONOCYTES INCREASES SIGNICANTLY IN THE GRAFT BLOOD COMPARED TO PERIPHERAL BLOOD IN PATIENTS WITH STABLE RENAL FUNCTION.

Authors: Caballero A, MD, PhD[1], Ruiz-Esteban P, MSc,PhD[2], Palma E, MsC[2], Torio A, MsC, PhD[3], Cabello M, MD,PhD[1],Lopez V, MD, PhD[1], Duarte A, MD[1], Vazquez T, MD[1], Hernandez D, MD, PhD[1].

[1] Immunology and [2]Nephrology Departments, Regional University Hospital, IBIMA, REDINREN (RD16/0009/0006), ICI14/00016, University of Malaga (Spain). [3]Immunology Department, Complejo Hospitalario General Universitario de Albacete, Albacete (Spain).

INTRODUCTION

We have recently reported that some lymphocyte populations do not maintain the same proportion in graft blood as in peripheral blood, despite a stable function of the transplanted kidney. These results suggest that the comparative study between leukocyte cells from the graft blood and those obtained in peripheral blood could provide information about the inflammatory state of the transplanted organ. In this work we selected the population of monocytes expressing CXCR3 to test this hypothesis.

MATERIAL AND METHODS

- The study was performed by flow cytometry during the third, sixth and twelfth months after transplantation.
- Patients: 69 patients who received an isolated kidney transplant and the same immunosuppressive regimen.
- The peripheral blood sample was obtained by venipuncture and the graft blood by fine needle aspiration.
- Aim: To Study the population of monocytes expressing CXCR3 in perifheral blood versus graft blood.

RESULTS

The results showed:

1. A significant decrease in CXCR3+ monocytes throughout the first year of transplantation in peripheral blood (p=0.001).
2. The percentage of CXCR3+ monocytes in the graft blood did not change over this period (p=0.253)
3. This situation resulted in a significant percentage difference between the CXCR3+ monocytes of the graft blood and those of the peripheral blood during:
    a. Sixth months (16.19±9.54 vs. 12.6±12.4, p=0.027).
    b. Twelfth months (14.10±8.94 vs. 6.3±9.0, p<0.001).

	Graft Blood	Peripheral Blood	p
3 Months	17.1±12.4	15.9±13.3	0.551
6 Months	19.2±9.5	12.2±8.9	0.027
12 Months	14.1±8.9	8.7±6.2	0.001
	0.253	0.001	

CONCLUSION

We can conclude, therefore, that the significant percentage increase of CXCR3+ monocytes in the graft blood with respect to the peripheral blood suggests the presence of inflammatory activity despite having stable renal function during the second half of the first year after transplant.

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Abelardo Caballero
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