



# CD45RC Expression of Circulating CD8 T Cells Predicts Acute Allograft Rejection: A Cohort Study of 128 Kidney Transplant Patients

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Mots-clés	acute rejection [11], CD45RC [12], Kidney Transplantation [13], lymphocyte [14]
Résumé en anglais	<p>Predictive biomarkers of acute rejection (AR) are lacking. Pre-transplant expression of CD45RC on blood CD8 T cells has been shown to predict AR in kidney transplant (KT) patients. The objective of the present study was to study CD45RC expression in a large cohort of KT recipients exposed to modern immunosuppressive regimens. CD45RC expression on T cells was analyzed in 128 KT patients, where 31 patients developed AR, of which 24 were found to be T-cell mediated (TCMR). Pre-transplant CD4 and CD8 CR45RC T cell proportions were significantly higher in patients with AR. The frequency of CD45RC T cells was significantly associated with age at transplantation but was not significantly different according to gender, history of transplantation, pre-transplant immunization, and de novo donor specific anti-Human Leucocyte Antigen (HLA) antibody. Survival-free AR was significantly better in patients with CD8 CD45RC T cells below 58.4% (<math>p = 0.0005</math>), but not different according to CD4 T cells (<math>p = 0.073</math>). According to multivariate analysis, CD8 CD45RC T cells above 58.4% increased the risk of AR 4-fold (HR 3.96, <math>p = 0.003</math>). Thus, pre-transplant CD45RC expression on CD8 T cells predicted AR, mainly TCMR, in KT patients under modern immunosuppressive therapies. We suggest that CD45RC expression should be evaluated in a prospective study to validate its usefulness to quantify the pre-transplant risk of AR.</p>
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### Liens

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