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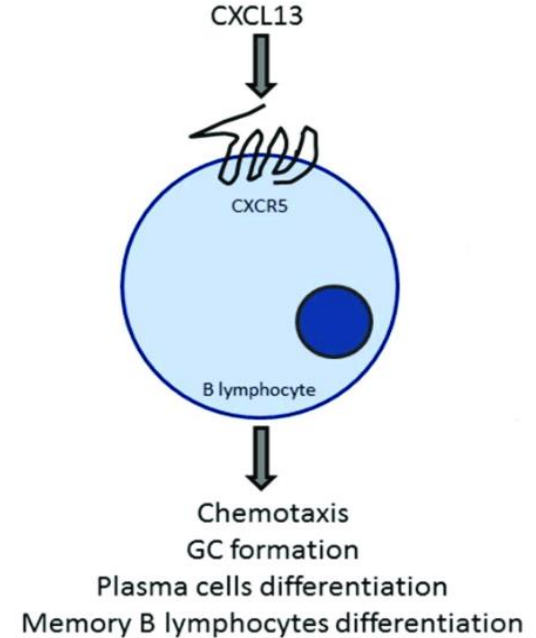
Böbrek Nakli Sonrası CXCR5 Ekspresyon Seviyesinin Artışı DSA Gelişimini Etkiler

Nurten SAYIN EKİNCİ

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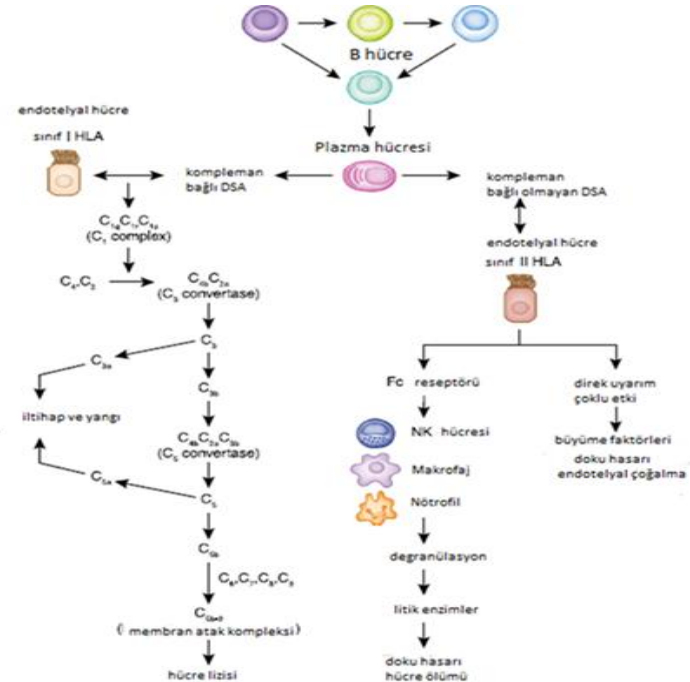
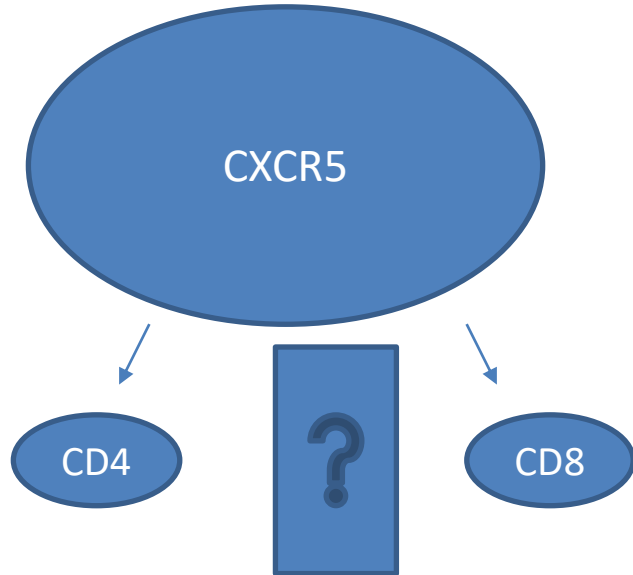
Giriş

C-X-C kemokin reseptör tip 5 (CXCR5), B hücrelerinin üzerinde proinflamatuvar fonksiyonlara sahip olan bir kemokin reseptörüdür.



B hücrelerinin aktivasyonu, antikor sınıfı geçişi ve germinal merkez oluşumu için kritiktir.

Böbrek transplantasyonunda humoral alloreaktiviteye aracılık edebileceği gösterilmiştir.



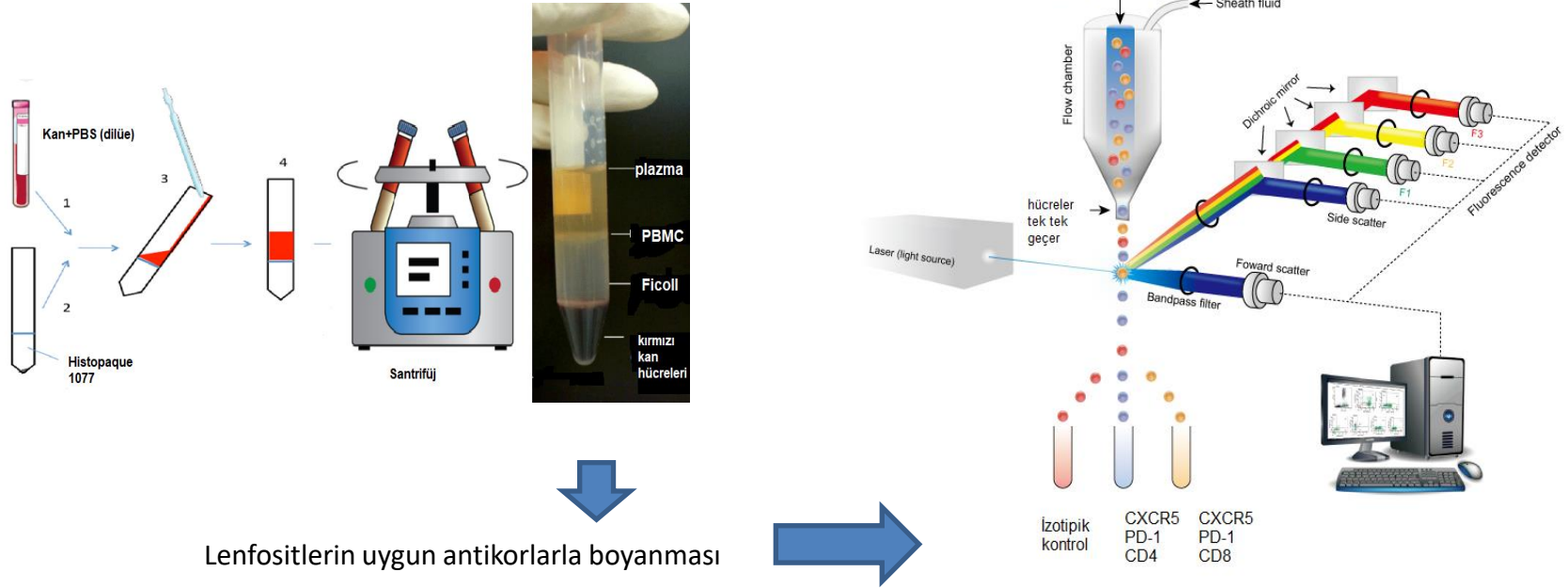
Amaç

Bu bilgiler ışığında çalışmamızda, DSA gelişen ve gelişmeyen böbrek nakli hastalarının ve sağlıklı bireylerin periferal kan CXCR5 ekspresyon seviyelerinin belirlenmesi amaçlanmıştır.

DSA: donöre özgü antikor

Yöntem

CXCR5⁺ hücre ekspresyon seviyesinin saptanması,

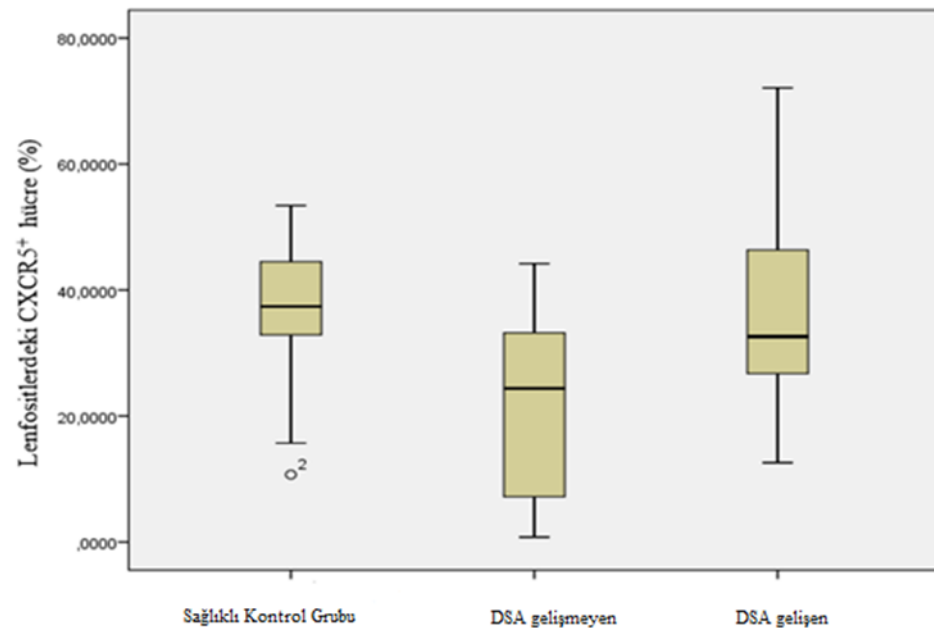


Hasta grubu: Organ Nakli Merkezimize başvuran nakil sonrası 60 birey

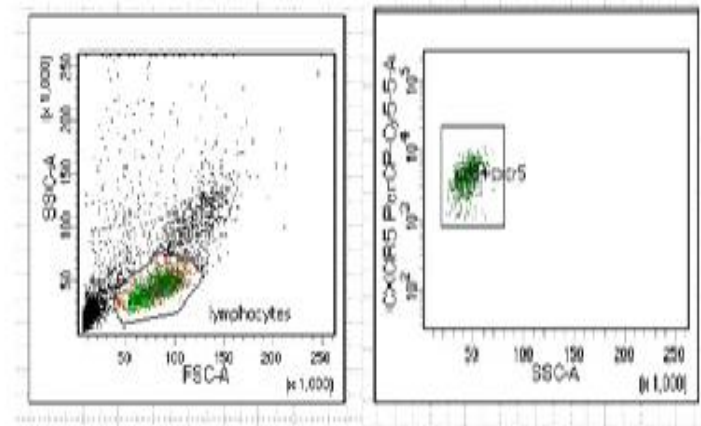
Kontrol grubu: Böbrek ve kemik iliği donör adayı 40 birey

Bulgular

Böbrek nakli sonrasında DSA gelişen bireylerin lenfositlerindeki CXCR5+ eksprese eden hücre yüzdesi, nakil sonrası DSA gelişmeyen ve sağlıklı kontrol grubuna göre daha yüksek bulunmuştur ($p=0.019$) ($p=0.001$).



DSA gelişen, gelişmeyen ve Sağlıklı Kontrol Gruplarının lenfositlerindeki CXCR5+ hücre yüzdelerinin karşılaştırılması



CXCR5+ Akım sitometri görüntüsü

Sonuç

- Nakil sonrası gelişen DSA'ların CXCR5 ekspresyonunu arttırdığı yönündeki verilerimizin literatüre yeni bilgiler sağlayacağı kanaatindeyiz.
- Hastaların nakil öncesi CXCR5 seviyesinin izlenmesi rejeksiyon riski daha yüksek hasta popülasyonunun belirlenmesine yardımcı olacaktır.

Evaluation of the relationship between de-novo DSA development and CXCR5+PD-1+CD8+ T cells and PD-1/PD-L1 mRNA expression in kidney transplant recipients

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Abstract

Background and aims: The relationship between the Follicular Cytotoxic T cell subgroup and expression levels of PD1/PD-L1 genes and the development of donor specific antibody (DSA) is unknown. In this study, we aimed to examine CD8+CXCR5+PD-1+ follicular cytotoxic T cell levels and expression levels of PD1/PD-L1 genes in peripheral blood lymphocytes in de-novo DSA positive and negative kidney transplant recipients (KTR).

Methods: In our study, expression of PD-1/ PD-L1 genes by Real-Time Quantitative PCR method and CD8+CXCR5+PD-1+ T cell expression levels by flow cytometric method were obtained from peripheral blood samples. 63 participants were included in the study (de-novo DSA positive recipients ($n = 22$, group 1), de-novo DSA negative recipients ($n = 20$, group 2) and healthy control ($n = 21$, group 3). All patients had negative PRA before kidney transplantation. Expression (%) levels of target cells were evaluated by flow cytometry method. IBM SPSS Statistics for Windows Version 22 and R.3.3.2 software were used to evaluate the data.

Results: The demographic data of the groups were similar. PD-1 mRNA expression was higher in de-novo DSA positive KTR than negative (respectively, $1.03 \pm .29/82 \pm .15$, $p: .001$). CD8+CXCR5+PD-1+ T cell expression levels were found to be higher in the de-novo DSA positive group than in the negative group and similar to the healthy group (respectively, $3.06 \pm 1.98/52 \pm .40$, $p: .001$, $3.06 \pm 1.98/2.78 \pm .59$, $p: .62$). The percentage of CD8+CXCR5+PD-1+ expressing T cells was significantly lower in the HLA-Class II+ group than other groups (HLA CI/II/ I+II, respectively, $3.63 \pm 2.72/1.65 \pm .50/3.68 \pm 1.67$, $p: .04$).

Conclusions: In our study, a significant relationship was found between DSA formation and PD-1 mRNA level and CD8+CXCR5+PD-1+ follicular cytotoxic T cell in KTR.

KEYWORDS

CD8+CXCR5+PD-1+ T cell, DSA, kidney transplantation, PD-1, PD-L1

TEŞEKKÜRLER