

## 비타민D 결핍은 신이식후 세균성 감염의 증가와 관계가 있다

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### Vitamin D Deficiency Is Associated with Increased Bacterial Infections After Kidney Transplantation

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**Background:** Vitamin D status was known to be associated with allograft and patient survival in kidney transplant recipients (KTRs). However, there are few studies about the association between vitamin D levels and post-transplant infections. This study investigated the impact of vitamin D deficiency on the development of infections after kidney transplantation.

**Methods:** We enrolled KTRs who measured 25-(OH) vitamin D level prior to kidney transplantation between January 2011 and December 2013. Vitamin D deficiency was defined as the serum 25-(OH) vitamin D level less than 20 ng/mL. We examined the incidence of various posttransplant infections during follow up period. Factors that increased risk of infections were investigated with multiple logistic regression.

**Results:** A total of 164 KTRs were followed up for mean 24.8 10.7 months. Among them, 135 (82.3%) patients had vitamin D deficiency. Patients with vitamin D deficiency showed significantly higher incidence of urinary tract infection ( $p=0.005$ ) and any bacterial infections ( $p=0.003$ ) compared to those without vitamin D deficiency. However, vitamin D deficiency was not associated with viral and fungal infections. Multivariate regression analysis revealed that vitamin D deficiency (odd ratio [OR] 21.5, 95% confidence interval [CI] 2.40 91.60,  $p=0.006$ ) and desensitization prior to kidney transplantation (OR 5.58, 95% CI 1.69 8.45,  $p=0.005$ ) were independent risk factors for post-transplant bacterial infections.

**Conclusion:** Pre-transplant Vitamin D deficiency was significant risk factor for bacterial infections after kidney transplantation. Further studies will be needed to ascertain the preventive role of vitamin D supplementation.

**Key Words:** 비타민D, 신장이식, 감염

Vitamin D, Kidney transplantation, Infection