

신장이식 전 vitamin D level이 이식 후 초기 임상경과에 미치는 영향

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반태현, 최범순, 박철휘, 양철우, 김용수, 정병하

Impact of Vitamin D Level Pre-transplant on the Early Post-transplant Clinical Outcome

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Background: It is well known that vitamin D shows immune modulating effects in various immunologic disorders and infectious disease. The aim of this study is to investigate the clinical significance of 25-vitamin D levels on acute rejection or infection in kidney transplant recipients.

Methods: We included 189 kidney transplant recipients with low immunologic risk. We measured 25-vitamin D levels right before transplantation, and investigated whether the level of vitamin D predicts the development of acute rejection or infectious complications.

Result: During 3 months after the KT, a total 13 cases of biopsy proven acute rejection was detected. Vitamin levels showed significant association with the development of acute rejection within 3 months from KT. In the high tertile, the rate of acute rejection was 1.6% ($p=0.048$). It was significantly higher in the second tertile and low tertile compared to the high tertile, but between the first and second tertiles, no difference was detected. However, for the prediction of acute rejection after the 3 months, predictive values of vitamin D levels were dissipated. During 3 months after KT, a total of 78 cases of infectious complications were detected. There were 9 cases of bacterial infection, and 69 cases of viral infection (CMV 60 cases, BKV 1 case, CMV and BKV co-infection 5 cases, HSV 3 cases). Vitamin D levels did not show significant association with either the overall or different types of infectious complications.

Conclusions: In the current study, high vitamin D levels in pre-transplant patients were associated with low acute rejection rates during a short term follow-up period. However it did not show significant relations to infectious complications that occurred post-transplant.

Key Words: 신장이식, 비타민D, 거부반응, 감염

Kidney transplantation, Vitamin D, Rejection, Infection