

## 만성 신부전 환자에서 25-OH vitamin D와 혈관 석회화의 관계

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### 25-hydroxyvitamin D Levels and Vascular Calcification in Predialysis and Dialysis Patients with Chronic Kidney Disease

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**Background/Aims:** The role of vitamin D in vascular calcification is unclear in patients with chronic kidney disease. We investigated whether serum 25-hydroxyvitamin D [25(OH)D] is associated with vascular calcification in predialysis and dialysis patients.

**Methods:** The simple vascular calcification score (SVCS) was evaluated in 86 predialysis and 139 dialysis patients by examining plain X-rays of the pelvis and hands as previously described. The carotid to femoral pulse wave velocity (CF PWV) was assessed using a commercially available device (VP-2000, Colin Corporation).

**Results:** Vitamin D deficiency was highly prevalent in our population (78.2%). Vascular calcification was present in 46.2%, and higher calcifications (SVCS >3) were significantly associated with lower 25(OH)D levels in all patients. Multiple logistic regression analysis for SVCS >3 showed that 25(OH)D levels were a negative independent predictor of vascular calcification in predialysis (OR; 0.731, 95% CI; 0.623-0.858,  $p=0.015$ ) and dialysis patients (OR; 0.755, 95% CI; 0.749-0.803  $p=0.002$ ). Lower 25(OH)D levels were associated with higher CF PWV in predialysis, but this inverse relationship was abolished on multivariate analysis.

**Conclusion:** We showed an independent relationship between low serum 25(OH)D levels and vascular calcification in both predialysis and dialysis patients.

**Key Words:** 25-OH 비타민 D, 만성 신부전, 혈관 석회화  
25-OH vitamin D, Chronic kidney disease, Vascular calcification