

## 혈액투석 환자에서 지속적으로 낮은 iPTH 수치가 혈관 석회화에 미치는 영향

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### Persistently Low Intact Parathyroid Hormone Levels Predict a Progression of Aortic Arch Calcification in Incident Hemodialysis Patients

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**Background and Objectives:** Recent observational studies have found that low iPTH is related with mortality in hemodialysis patients and these findings may be considered to be the result of accelerated cardiovascular calcifications in adynamic bone disease. This study was aimed to determine the relationship between persistently low iPTH and aortic arch calcification (AAC) in incident hemodialysis patients.

**Design, setting, participants, and measurements:** From January 2004 to December 2008, a total of 94 incident hemodialysis patients were enrolled in this study. They were divided into three groups according to the changing patterns of iPTH during the first year of hemodialysis. ACC was scored on posterior–anterior plain chest X-rays using a specific scale at the initiation of dialysis and followed till May 2011.

**Results:** The median follow-up periods were 46.9 months. The prevalence of baseline AAC and its progression were the highest in the persistently low iPTH group. Also, all-cause mortality was the highest in this group. Age, baseline calcification score and persistently low iPTH independently contributed to the progression of calcification by multivariate logistic regression analyses (HR 1.083, 95% CI 1.023–1.147,  $p=0.006$ ; HR 3.320, 95% CI 1.023–10.789,  $p=0.046$ ; HR 5.207, 95% CI 1.027–26.412,  $p=0.046$ , respectively). However, there was no relationship between calcification progression and mortality.

**Conclusion:** Persistently low iPTH was closely associated with AAC and mortality in incident hemodialysis patients, but progression of AAC was not independently associated with mortality.

**Key Words:** 혈액투석, 부갑상선 호르몬, 혈관 석회화

Hemodialysis, Parathyroid hormone, Vascular calcification