Ezetrol과 Vytorin이 말기 신부전 환자의 내피 세포 손상 및 혈전 생성 지표에 미치는 영향

서울아산병원 신장내과

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Effects of Ezetimibe (Ezeterol®) and Ezetimibe plus Simvastatin (Vytorin®) on Markers for Endothelial Injury and Thrombogenesis in End-Stage Renal Disease (ESRD) Patients

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Introduction : Ezetimibe inhibits the intestinal uptake of cholesterol and related phytosterol. In previous studies, statins exerted anti-inflammatory, anti-thrombogenic and anti-oxidant effects as well as beneficial effects on lipid profiles. In this study, we evaluated the effect of Ezeterol and Vytorin on lipid profile and markers for inflammation, endothelial injury and thrombogenesis in ESRD patients.

Methods : Sixty-five patients (33 patiens on hemodialysis therapy and 32 patients on peritoneal dialysis therapy) with serum cholesterol levels of 170 mg/dL or greater were assigned to the administration of Ezeterol 10 mg/day or Vytorin 10/10 mg/day. Both drugs were administrated for 8 weeks. Total cholesterol, LDL cholesterol, HDL cholesterol, triglyceride (TG), high-sensitivity C-reactive protein (hs-CRP), fibrinogen (a marker of ischemic heart disease), von Willebrand factor (vWF; a marker of endothelial injury), and D-dimer (a marker of intravascular coagulation) were measured at baseline and 8 weeks of treatment.

Results : Thirty hemodialysis patients and thirty one peritoneal dialysis patients completed the study. Ezeterol group were associated with a 30±39 mg/dL decrease in total cholesterol and a 30±34 mg/dL decrease in LDL cholesterol. Vytorin group produced 63±29 mg/dL decrease and 54±26 mg/dL in total and LDL cholesterol level compared with baseline level, respectively. TG, HDL-cholesterol, hs-CRP, fibrinogen, vWF and D-dimer did not change in both groups. When we separately analyzed in HD and CAPD patients, Vytorin significantly decreased vWF and D-dimer in HD patients (106.00 to 84.30, p=0.042; 0.74 to 0.55, p=0.026, respectively). Fibrinogen did not change in HD patients in Vytorin group. D-dimer, vWF and fibrinogen were not changed in CAPD patients.

Conclusions : These results suggest that Ezetimibe plus simvastatin therapy may have a additional beneficial effect on cardiovascular disease, in part because it alleviates intravascular thrombogenesis and endothelial injury in HD patients.