

عنوان مقاله:

Effect of vitamin D therapy on endothelial function in ischemic heart disease female patients with vitamin D deficiency or insufficiency: A primary report

محل انتشار:

مجله آریا آترواسکلروز, دوره 11, شماره 1 (سال: 1394)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

BACKGROUND: Vitamin D deficiency is associated with vascular endothelial dysfunction. We evaluated endothelial function in ischemic heart disease (IHD) patients with vitamin D deficiency or insufficiency before and after vitamin D therapy. **METHODS:** An uncontrolled before-after study was conducted in Isfahan, Iran on consecutive sample of female IHD patients who had undergone percutaneous coronary intervention in the preceding 6 months and/or referred with chronic stable angina. Forty patients with vitamin D deficiency or insufficiency (serum 25-hydroxy vitamin D < 20 or 20-30 ng/ml, respectively) were included and received two intramuscular injections of 300,000 IU cholecalciferol with 1 month interval. Endothelial function, assessed by measuring flow-mediated dilatation (FMD), and serum 25-hydroxy vitamin D level were measured at baseline and 1 month after the second dose of cholecalciferol. **RESULTS:** A total of 30 patients completed the study, age = 59.4 ± 8.7 years; serum 25-hydroxy vitamin D = 19.0 ± 6.5 ng/ml. After treatment, serum 25-hydroxy vitamin D was reached to > 30 ng/ml in all patients. Brachial artery diameter (mm) after ischemia increased significantly, statistically but not clinically (4.55 ± 0.37 to 4.67 ± 0.38 , $P < 0.001$). Furthermore, FMD (%) was increased from 1.96 ± 1.65 to 4.65 ± 1.27 ($P < 0.001$). The amount of change in FMD was not significantly correlated with serum 25-hydroxy vitamin D ($r = 0.038$, $P = 0.858$). **CONCLUSION:** Endothelial function was improved after vitamin D therapy in IHD patients with low serum vitamin D. Controlled studies with larger sample size are required to confirm if vitamin D therapy has effects on endothelial function

کلمات کلیدی:

Cardiovascular Diseases, Coronary Artery Disease, Endothelium, Vitamin D Deficiency

