Topic: Atherosclerosis (Clinical), Cardiac Catheterisation**VEGF-C and Cardiovascular Mortality in Patients Undergoing Drug-eluting Stent Implantation**

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The lymphatic system has been suggested to play an important role in cholesterol metabolism and cardiovascular disease. Vascular endothelial growth factor-C (VEGF-C) plays a key role in lymphangiogenesis. Recently, we demonstrated that VEGF-C is closely associated with dyslipidemia and atherosclerosis. However, the relationship between VEGF-C levels and cardiovascular mortality in patients with established coronary artery disease is unknown.

We performed a prospective cohort study involving a total of 433 patients who underwent successful drug-eluting stent implantation. The prescription rate of statin was 100% at the baseline.

Patients were followed up over 4 years. The outcome was cardiovascular death. Pre-procedural serum levels of VEGF-C were

measured. Patients were divided into two groups based on the median of VEGF-C levels. During the follow-up, a total of 23 patients (5.3 %) died from cardiovascular disease. In Kaplan-Meier analysis, the low-VEGF-C group had a significantly higher risk of cardiovascular death compared with the high-VEGF-C group ($p < 0.001$ by log-rank test). Furthermore, multivariate Cox proportional hazard analysis revealed that VEGF-C levels were significantly and inversely associated with the risk of cardiovascular death after adjustment for traditional risk factors and chronic kidney disease (adjusted hazard ratio, 0.55 for 1-SD increase; 95 % CI [0.34–0.87]; $p = 0.011$).

In conclusion, a low VEGF-C value was independently associated with cardiovascular mortality in patients after drug-eluting stent implantation. ■