Featured Abstracts

The following abstracts were also accepted for display at the meeting

Topic: Atherosclerosis (Clinical), Cardiac Catheterisation

Relationship Between VEGF-C Levels and Mortality in Patients with Peripheral Artery Disease

Nobutoyo Masunaga,^{1,2} Shuichi Ura,¹ Mitsuru Ishi,^{1,2} Takashi Unoki,¹ Daisuke Takagi,² Moritake Iguchi,^{1,2} Kensuke Takabayash,² Yugo Yamashita,² Yasuhiro Hamatani,² Hisashi Ogawa,^{1,2} Noriko Satoh-Asahara,³ Akira Shimatsu,³ Mitsuru Abe,^{1,2} Masaharu Akao,^{1,2} Koji Hasegawa¹ and Hiromichi Wada¹

1. Division of Translational Research, Kyoto Medical Center, Kyoto, Japan; 2. Department of Cardiology, Kyoto Medical Center, Kyoto, Japan; 3. Department of Endocrinology, Metabolism and Hypertension, Kyoto Medical Center, Kyoto, Japan; 4. Division of Diabetes Research, National Hospital Organization, Kyoto Medical Center, Kyoto, Japan

Keywords: VEGF-C levels, peripheral artery disease, atherosclerotic disease, all-cause mortality

Citation: *European Cardiology Review* 2018;**13**(2):123. DOI: <https://doi.org/10.15420/ecr.2018.13.2.PO4>

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 dyslipidaemia and atherosclerosis. However, the relationship between VEGF-C levels and mortality in patients with atherosclerotic disease is unknown.

We performed a prospective cohort study involving a total of 204 patients with peripheral artery disease. Patients were followed up over 4 years. The outcome was all-cause death. Serum levels of VEGF-C were measured at baseline. Patients were divided into two

groups based on median VEGF-C levels. During the follow-up, a total of 53 patients (26.0 %) died from any cause. In Kaplan-Meier analysis, the low-VEGF-C group had a significantly higher risk of all-cause death compared with the high-VEGF-C group ($p < 0.001$ by log-rank test). Furthermore, multivariate Cox proportional hazard analysis revealed that the VEGF-C level was significantly and inversely associated with the risk of all-cause death after adjustment for age, sex, traditional risk factors, chronic kidney disease, and the Fontaine stages (adjusted hazard ratio 0.70 for 1-SD increase; 95 % CI [0.52–0.95]; $p = 0.02$). In conclusion, a low VEGF-C value was independently associated with the risk of all-cause mortality in patients with peripheral artery disease. ■