PLASMA OSTEOPONTIN LEVELS WERE MORE ELEVATED IN CORONARY ARTERY THAN IN SYSTEMIC CIRCULATION IN PATIENTS WITH ACUTE CORONARY SYNDROME

ACC Poster Contributions
Georgia World Congress Center, Hall B5
Monday, March 15, 2010, 9:30 a.m.-10:30 a.m.

Session Title: Vascular Biology/Atherosclerosis I
Abstract Category: Vascular Biology/Atherosclerosis/Thrombosis/Endothelium
Presentation Number: 1165-345

Authors: Yoshinori Yasuoka, Motohiro Kosugi, Ryo Araki, Takahiro Imanaka, Ryo Matsutera, Susumu Hattori, Yoshiki Noda, Hidenori Adachi, Hiroaki Irino, Tatsuya Sasaki, Osaka Minami Medical Center, Osaka, Japan

Background: Plasma osteopontin (OPN) expression was reported to be associated with plaque instability. However, dynamics of localized OPN expression in coronary artery were unclear in patients with coronary artery disease.

Methods: 33 patients with new-onset acute coronary syndrome (ACS) within 6 hours were enrolled in the study. 11 patients without coronary artery disease by coronary angiography were allocated to the controlled subjects (CTL). Patients with rheumatoid arthritis or subjects, who were prescribed with steroid were excluded. Blood samples were obtained from two different sites; one from thrombus-aspiration catheter (OPN-1) in the ACS group and another from peripheral artery through a sheath (OPN-2) during emergent percutaneous coronary intervention, provided that OPN-1 from coronary artery catheter in the CTL group. OPN-1, OPN-2 (ng/ml), and high-sensitivity C-reactive protein (hs-CRP; mg/dl) were measured and compared between the ACS and CTL groups.

Results: OPN-1 was significantly higher than OPN-2 (461±162 vs 388±165; P<0.001) and strongly correlated with OPN-2 in the ACS group (r=0.91). OPN-2 and hs-CRP were not significantly different between the two groups. However, OPN-1 was significantly higher in the ACS group compared with the CTL group (461±162 vs 293±122; P=0.003).

Conclusions: Localized OPN expression in coronary artery was suggested to reflect direct inflammation more sensitively than plasma OPN expression and hs-CRP in patients with ACS.