Clinical outcome in patients with intermediate lesions with minimum lumen area less than 4 mm² in non-proximal epicardial coronary artery

Background: The cut-off value of intravascular ultrasound (IVUS) minimum lumen area (MLA) 4 mm² is currently used for the prediction of future clinical events in patients with proximal epicardial coronary artery disease. Objectives: We assessed the 2-year clinical events in patients with angiographically intermediate lesions with IVUS MLA <4 mm² in non-intervened non-proximal epicardial coronary artery. Methods: We retrospectively enrolled 55 patients (28 males, 63.2±9.1 years) with angiographically intermediate lesions (diameter stenosis 30-70%) with IVUS MLA <4 mm² in non-intervened non-proximal epicardial coronary artery with reference lumen diameter between 2.25 and 3.0mm. We evaluated the incidences of 2-year clinical events (cardiac death, nonfatal myocardial infarction, cerebrovascular accidents, and target lesion and target vessel revascularizations) after medical therapy. Results: Most of the patients had stable (40%) and unstable anginas (44%). The incidences of hypertension and diabetes mellitus were 58% and 26%. IVUS MLA was 3.56±0.41 mm² and plaque burden was 64.1±7.0%. During 2-year follow-up, no cardiac death occurred with 3 noncardiac death (5.5%), no myocardial infarction occurred, no cerebrovascular accident occurred, and 5 target lesion (9.1%) and 6 target vessel revascularizations (10.9%) were performed. When we compared clinical, angiographic, and IVUS parameters between patients with and without 2-year follow-up clinical events, there were no differences between both groups. Conclusions: Although we enrolled small number of patients retrospectively in this study, the Results of our study suggests that the event rates are relatively low with only medical therapy without any intervention, so the cut-off of IVUS MLA 4 mm² may not be applied for patients with angiographically intermediate lesions with IVUS MLA <4 mm² in non-proximal epicardial coronary artery.

Clinical and angiographic characteristics in veterans with acute coronary syndrome exposed to agent orange

Background: TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin), a material of agent orange, was reported as a deadly poison in spite of its presence at extremely small doses. It has been reported that TCDD can cause various kinds of cancers and harmful effects on humans. However, a correlation between exposure to TCDD and acute coronary syndrome (ACS) including ST-elevation Myocardial Infarction (STEMI), NSTEMI and Unstable Angina is not yet known. Therefore, the aim of this study was to examine the relationship between TCDD exposure and ACS through an analysis of coronary database of the Gwangju Veterans Hospital. Methods: A consecutive 254 male patients undergoing coronary angiogram due to ACS between April 2004 and May 2009 were analysed. Included subjects were between 50 and 70 years of age. The patients were divided into two groups : 121 patients exposed TCDD (Group I, average age 60.4±2.8 years) and 133 patients that were not exposed to TCDD (Group II, average age 60.6±4.9 years). The clinical and coronary angiographic findings were evaluated. Results: Baseline clinical characteristics, inflammatory markers and echocardiographic parameters were not different between the two groups. The incidence of hypertension (71.1% vs 58.6%, p=0.039) and hyperlipidemia (27.3% vs 16.5%, p=0.038) were higher in patients with group I than group II. Angiographic findings such as presence of total occlusion (12.8 vs 9.4%), vessel number, lesion length, stent length, use of stent and ACC/AHA lesion classification were not different between the two groups. And, clinical parameters such as CCS angina class, pulmonary edema, cardiogenic shock were not different between the two groups. There were no statistical differences in in-hospital mortality and MACE at 12 months between two groups. Conclusion: Despite of higher incidence of hypertension and hyperlipidemia, exposure of TCDD does not affect the severity of cardiovascular disease and prognosis in the patients with ACS.