RESPONDERS TO LIFE STYLE MODIFICATION AND/OR DRUG THERAPY IN EARLY STAGE DIABETIC PATIENTS SHOW THE SUPPRESSION OF ATHEROMA PROGRESSION

ACC Moderated Poster Contributions
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Authors: Yu Kataoka, Satoshi Yasuda, Yoshihiro Miyamoto, Kazuo Sase, Masami Kosuge, Kazuo Kimura, Yasunao Yoshimasa, Shunichi Miyazaki, National Cerebral and Cardiovascular Center, Suita, Japan

Background: In the early-stage diabetic phase, glycemic abnormality including postprandial hyperglycemia has been associated with the development of atherosclerosis. However, it remains to be elucidated whether intensive glycemic control can halt atheroma progression in this phase.

Methods: DIANA (DIabetes and diffuse coronary NArowing) study is a prospective, randomized, open-label, multicenter trial. 302 CAD patients with impaired glucose tolerance/diabetes mellitus diagnosed by 75g oral glucose tolerance test and HbA1c <6.9% were randomly assigned to life-style intervention (n=101), voglibose (0.9mg/day, n=100) or nateglinide treatment (180mg/day, n=101). One-year coronary atherosclerotic changes were evaluated by our invented angiographic indexes using quantitative coronary angiography.

Results: While voglibose significantly improved glycemic status, coronary atherosclerotic changes at one year were similar among three groups. In overall patients, less atheroma progression was observed in patients with the improvement of glycemic status at one-year (Figure. %change in total diseased lesion length: 3.5% vs. 26.2%, p<0.01, %change in average diseased lesion length: 0.7% vs. 18.6%, p=0.02).

Conclusions: Regardless of treatment types, the improvement of glycemic status provides benefits on atheroma progression in Japanese early-stage diabetic patients with CAD. Our findings highlight the importance for the management of glycemic abnormality in these patients.

Figure.