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Prevention

CLINICAL PREDICTORS FOR ATHEROMA PROGRESSION DESPITE OPTIMAL GLYCEMIC CONTROL IN EARLY-STAGE DIABETIC PATIENTS: SUB-ANALYSIS FROM DIANA STUDY

Oral Contributions
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Backgrounds: In DIANA (DIAbetes and diffuse coronary NArrowing) study which evaluated the impact of glucose lowering therapy on angiographical progression in early-stage diabetics, optimal glycemic control resulted in less progression. However, despite favorable glycemic status, some patients continued to progress. The factors of progression despite optimal glucose control remain to be elucidated.

Methods: DIANA study was a prospective and randomized trial to compare the effect of lifestyle intervention, voglibose or nateglinide on angiographical progression in 302 patients with impaired glucose tolerance/newly diagnosed diabetes. Of these, 137 patients who achieved optimal glycemic control were stratified as progressors (n=30) and nonprogressors (n=107) and compared.

Results: Progressors were more likely to receive lifestyle intervention (p=0.03), and exhibited less increase in HDL-C (p=0.03), suboptimal control of systolic blood pressure (SBP: p=0.02) and less prevalent baseline total lesion length (TLL: p<0.01) derived by quantitative coronary angiography. Multivariate analysis demonstrated that %change in HDL-C and SBP, statin use and baseline TLL were independently related to disease progression (Table).

Conclusions: In early-stage diabetics with optimal glucose control, the control of HDL-C and SBP is related to disease progression. This finding underscores the intensive modification of residual risk factors in early diabetic phase to prevent atheroma progression.

Table: Multivariate Analysis for the Factors Related to Atheroma Progression

	Odds ratio (95% CI)	p-value
% change in HDL-C	0.982 (0.963-0.997)	0.02
% change in SBP	1.062 (1.017-1.111)	0.006
statins	0.145 (0.018-0.690)	0.01
Life-style intervention	0.628 (0.213-1.856)	0.39
Baseline TLL	1.152 (1.063-1.279)	<0.0001

SBP = systolic blood pressure, TLL = total lesion length