

along with clinically effective and safe drug therapy for plaque reversal.

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CHALLENGES OF PAS THERAPY FOR CORONARY ATHEROSCLEROTIC PLAQUE REVERSAL

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Objectives Coronary artery diseases (CAD) are the major causes of cardiovascular events. Early finding and early treatment of coronary atherosclerotic plaques are critical for preventing cardiovascular events. We used PAS (P: probucol, A: aspirin, S:Statin-atorvastatin) therapy to treat atherosclerotic patients, and obtained significant results regarding plaque reversal. Simultaneously, there is also decreasing potential of ox-LDL and MMP-2 expression.

Methods 150 Patients who visited second Hospital of Jilin University as out-patient or in-patient from February 2008 to February 2011 were selected. They were undergone coronary angiography or coronary CTA examination. Stenosis of at least one branch of coronary artery from 10% to 50% was selected. Before inclusion, they had not used any lipid lowering agents for at least 3 months in a year. Age ranges from 30 to 75 years. All patients were divided into two groups, control (AS) group (100 mg/d aspirin, 20 mg/d atorvastatin), and treatment (PAS) group (0.5 g/d probucol, 100 mg/d aspirin, 20 mg/d atorvastatin). Finally, after follow up for 1 year, stenosis area, plaque length, ox-LDL level and MMP-2 expression of both groups was compared.

Results There is tendency of plaque reversal in both groups. In control group, stenosis area, plaque length, ox-LDL level, MMP-2 level were 0.53 ± 0.19 , 10.62 ± 3.88 , 41.94 ± 3.8 and 11114 ± 10036 respectively, while in treatment (PAS) group, stenosis area, plaque length, ox-LDL level, MMP-2 level were 0.47 ± 0.41 ($p < 0.01$), 9.36 ± 3.46 ($p < 0.01$), 26.93 ± 1.52 ($p < 0.01$) and 7898 ± 458 ($p < 0.01$) respectively, which means there is significant statistical difference.

Conclusions

1. Both PAS and AS therapy have potential for coronary atherosclerotic plaque reversal along with decreasing tendency for serum ox-LDL, MMP-2 level, but PAS therapy is more potential than AS therapy.
2. PAS (with antioxidant) can be golden combination therapy