Objective To investigate the variation of the carotid arteriosclerotic plaque and intima–media thickness before and after therapy in the patient of coronary heart disease. Evaluate the correlation between carotid intima-media thickness and coronary heart disease to provide prevention and treatment evidence for coronary heart disease.

Methods Two hundred and forty coronary heart disease patients validated through angiographic examinations with the carotid arteriosclerotic plaque and abnormal intima–media thickness certified by Doppler ultrasound assessment were enrolled. Regular inspection of the carotid intima-media thickness by Doppler ultrasound after conventional coronary heart disease drug therapy, comparing the variation of the carotid arteriosclerotic plaque and intima–media thickness before and after therapy.

Results The difference of the carotid intima–media thickness, the number and the total area of the carotid arteriosclerotic plaque between before and after both at 6 months and 1 year of the treatment was highly significant (p<0.001). After conventional drug therapy, the amelioration of the carotid atherosclerotic plaque and intima–media thickness was observed most notably after the mean 6 months treatment.

Conclusion The amelioration of the carotid arteriosclerotic plaque and intima–media thickness was observed most notably after conventional drug therapy, the coronary heart disease is in close relations with the carotid atherosclerosis and its treatment outcome.