

Effect of hormone replacement therapy on arterio sclerosis of common carotid artery

Ken-ichi GOYA¹ Shun-ichiro IZUMI¹ Takayo MURANO¹ Akira MORI¹
¹ Masae IKEDA¹ Haruyo ATSUMI¹ Masako SHIDA¹ GohKIKI¹ Kazumi
TAKAHASHI¹

¹ Tokai University, School of Medicine, Isehara City, JAPAN

Objective: We tried to elucidate the influence of hormone replacement therapy (HRT) on atherogenesis.

Methods: Fifteen women with postmenopausal period of more than 3 years received HRT for 12 months and were analyzed their lipid parameters as follows: total cholesterol, triglyceride, HDL- cholesterol, and LDL- cholesterol. As well as intima-media thickness (IMT), the stiffness index and blood flow of the common carotid artery (CCA) was calculated from systemic blood pressure and arterial diameter changes measured by a phase locked echo tracking system coupled to a B-mode ultrasonic imager.

Results: In HRT group, serum TC and LDL-C levels were decreased significantly and HDL-C was increased significantly at 6 and 12 months. Pulse pressure was not changed, but the stiffness index were decreased due to an increase in the pulse amplitude at 6 months. There was no significant change in IMT.

Conclusion: HRT decreases CCA stiffness, which is more sensitive than IMT. With evidenced beneficial changes on lipid profile, HRT may correct atherogenic postmenopausal changes.