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**ELASTICITY OF BLOOD VESSEL DECREASED INDUCED BY AGING IS THE MAIN FACTOR OF VASCULAR SENESENCE**

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**Objectives** To explore the ankle brachial index (ABI) and brachial-ankle pulse wave velocity (baPWV) in the same group of healthy people in longitudinal section. To investigate the elasticity of blood vessel decreasing rate with aging.

**Methods** Based on the healthy people cohort in 2008 in Shenyang, the healthy people were divided into <45-years old, 45–54 years old, 55–64 years old, 65–74 years old and >74 years old groups according 2008 age. We conduct 310 self-control analysis after 3 years later. They finished biochemistry, carotid ultrasonograph, limb blood pressure detected by arteriosclerosis detector (systolic blood pressure, diastolic blood pressure, pulse pressure), baPWV, ABI and so on.

**Results** There are significant differences between serum total cholesterol, lower-density lipoprotein, systolic blood pressure, diastolic blood pressure, pulse pressure, ABI, baPWV, ABI changed value and baPWV changed value in different groups in 310 healthy people ( $p<0.05$ ). There are positive correlation between serum lower-density lipoprotein, serum uric acid, systolic blood pressure, diastolic blood pressure, pulse pressure, ABI, baPWV, baPWV changed value and age ( $p<0.05$ ). There is negative correlation between ABI changed value and age. There are significant differences of high-density lipoprotein, lower-density lipoprotein, serum uric acid, fasting plasma glucose, systolic blood pressure, diastolic blood pressure, pulse pressure, ABI, baPWV in the twice examination ( $p<0.01$ ) after self-control analysis.

**Conclusions** There are association between age and ABI and baPWV. Elasticity of blood vessel decreased induced by aging is the main factor of vascular senescence.