Age dependent features of carotid pulse waveforms measured by piezoelectric sensor

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The final purpose of this study is to develop a simple and safe system to evaluate cerebral arteries using a commercial piezoelectric sensor. We developed a pulse wave measurement system and measured pulse waveforms at the carotid artery. Three characteristic features were proposed to describe the effects of age on the waveforms. From 96 in vivo data and the application of multinomial logistic regression model using these features, accuracy of the estimation of vessel age was 0.85. This system will help in the assessment of arteries stiffened by disease.