

COMPUTER PROCESSING OF SFIGMOGRAMMY

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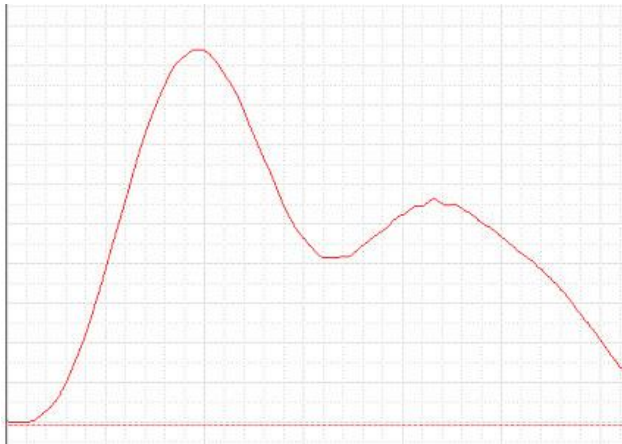
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Introduction. Sfigmografy is a graphical method of registering pulse oscillations of blood pressure in the vessels. Sfigmogram is registering by using a sensor, which is installing on the site of the body with a strong surge of arteries-the carotid, femoral or radial arteries. For this purpose is using a pair of led diode - photodiode.



aorta.

Sfigmogram is correlating with electrocardiogram (see a picture). The basic systole wave of sfigmogram is begun with the steep getting up - anakroty, blood conditioned by the rapid receipt from a left ventricle in an aorta in the period of banishment. The top of systole wave corresponds to the moment of achievement of maximal pressure in an aorta. After it there is the smooth decline of basic systole wave (katakrota), which at the end of phase of banishment passes in inzisury (minimum on the graph). The lowest point of inzisury corresponds to the moment of closing of valve of

The analysis includes the temporal analysis of separate elements of sfigmogramm and description of form of curve which is very characteristic at some diseases.

There were made the temporal analysis of a few sfigmogramm.

There are measured parameters of sfigmograms of four men. The parameters of these sfigmograms are defined and are made the conclusions on some aspects of health research objects.

Aim. Analysis of sfigmogrammy signal. Determination of parameters that characterize the activities of the human heart. Evaluation of the human condition.

Materials and methods. Sfigmogramm signals were received of several people. They are cleaned from interference with the help of the program POWERGRAPH. Selected one of the pulses and stored in computer memory as a figure and as a text file. The coordinates of characteristic points of the signal were fined. Calculated the values of the indexes of breast enlargement surgery, pulse wave velocity and other parameters of sfigmogrammy.

Results and discussion. There are made comparison of state organisms of several people.