

INVESTIGATION OF THE ENDOVASCULAR GRAFT PECULARITIES

Ostasevicius V. ¹, Tretsyakou-Savich Y¹, Minchenya V.T. ²

¹Kaunas University of Technology

²Belarusian National Technical University

Graft is the prosthetic intravascular placed transluminally as an alternative to invasive surgical replacement of an artery (Fig.1).

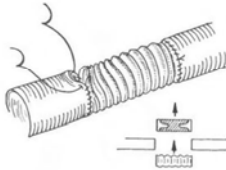


Fig. 1 Implantation of endoprosthesis

For the purpose of the investigation of dynamical properties of the graft the experimental set-up was constructed (Fig.2)

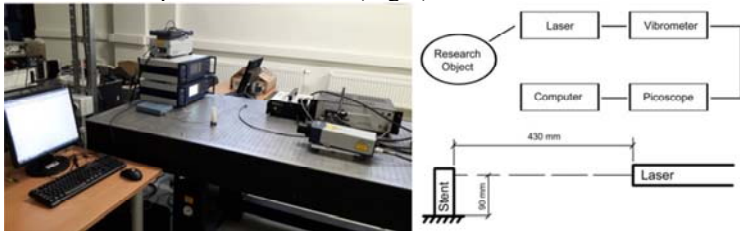


Fig. 2 Experimental set-up

Laser beam registers the of graft vibrations. Picoscope decodes output values to special software PicosCope 6.0 and, in final, on computer it looks graphically (Fig. 3) on 2 axes of coordinates – Amplitude (A) and Time (T).

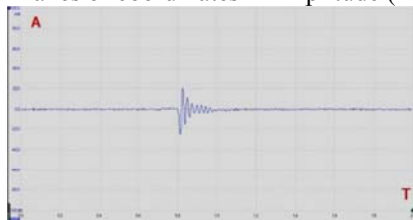


Fig. 3 Dynamic characteristic of graft sample

Thus necessary data for further calculation are obtained. Sample of graft, which was using on experiment, have all elastic and rigidity properties to replacement of the damaged area in human cardiovascular system.