

Video Article

Catherization of abdominal aorta and measuring decrease of cardial inotropy due to ischemic cardiomyopathy created by LAD ligatiure in a rat model

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Abstract

A worldwide spreading disease is heart failure caused by infarction. In order to test cures for this condition we present how to induce ischemic cardiomyopathy in a rat model. Our project focusses on enhancing the cardiac contractibility by using artificial contractile meshes. We use the left anterior descending coronary artery(LAD) ligation technique, to create a heart failure model. The aim is to achieve a lower cardiac output with subsequent decrease in blood pressure measured by the insertion of a catheter through the abdominal aorta. The procedure commences by preparation of the main airways followed by tracheotomy and intubation. Before and after inducing cardiomyopahty the blood pressure is measured by the means of a catheter inserted in the abdominal aorta.Subsequent to the measurement of the normal, healthy blood pressure a thoracotomy is conducted and a cardiomyopathy induced by ligation of the LAD. By remeasuring the blood pressure we detect the resulting effects of cardiomyotopathy.

Disclosures

No conflicts of interest declared.