LOOPS study.

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON25002

Source
NTR

Brief title
LOOPS

Health condition

Intraoperative cardiac monitoring, left ventricular function

Sponsors and support

Primary sponsor: VU University Medical Center
Source(s) of monetary or material Support: VU University Medical Center

Intervention

Outcome measures

Primary outcome

Is it possible to reconstruct intraoperative left ventricular end-systolic pressure-volume relations from a combination of non-invasive finger arterial blood pressure measurements and transesophageal echocardiography in patients undergoing surgery?

Secondary outcome

1. What is the relation of dicrotic notch pressure in the aortic pressure curve to beat average

pressure?

2. Loading changes to construct the end systolic pressure-volume relation are commonly induced by reducing preload using inferior vena cava compression. Does increasing afterload using phenylephrine-induced vasoconstriction provide an alternative for inferior vena cava compression?

Study description

Background summary

In this study we will investigate a method combining transoesophageal echocardiography and non-invasive finger arterial blood pressure waveforms to non-invasively construct pressure-volume (P-V) loops to describe the end-systolic pressure-volume relations in the heart. This may provide a method to obtain more insight on cardiac contractile function and the interaction of the heart with the vasculature during surgery.

Study objective

Is it possible to construct intraoperative left ventricular end-systolic pressure-volume relations from a combination of non-invasive finger arterial blood pressure measurements and transoesophageal echocardiography in patients undergoing surgery?

Study design

All measurement will take place in the operating room during surgery.

Intervention

Besides standard intraoperative monitoring, patients will receive the following:

1. Transoesophageal echocardiography;

2. Continuous noninvasive finger blood pressure measurements using the Nexfin;

3. Inferior Vena cava occlusion for 15 seconds;

4. Administration of Fenylephrine intravenously.

Contacts

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Eligibility criteria

Inclusion criteria

1. Patients scheduled for:

A. Open abdominal surgery via laparotomy;

B. Cardiac surgery, Coronary Artery Bypass Graft.

2. Age 18-75 years;

3. Informed consent.

Exclusion criteria

Group A specific:

1. Known / documented cardiac disease;

2. ECG / echocardiography abnormalities.

All subjects group A + B:

1. Contraindications for TEE;

2. Contraindications for arterial line;

3. Contraindications for administration of phenylephrine.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Parallel
Allocation:	Non controlled trial

Control: N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-06-2011
Enrollment:	20
Type:	Anticipated

Ethics review

Positive opinion

Date:	16-06-2011
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL2800
NTR-old	NTR2941
Other	VUmc department of Anesthesiology : ANES 2011/01
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Study results

Summary results
N/A