The relation of pre- and postoperative heart rate variability and baroreflex sensitivity with orthostatic intolerance in patients undergoing primary total hip or knee replacement

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON23503

Source
NTR

Brief title
HRV

Health condition

orthostatic intollerance in the pre- or postoperative phase in patients undergoing total hip or knee replacement

NL: orthostatische intollerantie in de pre- of postoperatieve fase bij patiënten met een totale heup of knie vervanging

Sponsors and support

Primary sponsor: Westfriesgasthuis
Maelsonstraat 3
1624 NP Hoorn
Source(s) of monetary or material Support: Financiering vakgroep anesthesie Westfriesgasthuis

Intervention

Outcome measures

Primary outcome

Heart rate variability

Secondary outcome

baroreflex sensitivity, orthostatic hypotension system assessment(OHSA) and orthostatic hypotension daily activity scale (OHDAS)

Study description

Background summary

Background:

Glenohumeral (shoulder) dislocations are the most common large joint dislocations seen in the

emergency department (ED). They cause pain, often severe, and require timely interventions to

minimize discomfort and tissue damage. Commonly used reposition or relocation techniques often

involve traction and/or leverage. These techniques have high success rates but may be painful and

time consuming. They may also cause complications.

Recently, other techniques—the biomechanical reposition techniques (BRT)—have become more

popular since they may cause less pain, require less time and cause fewer complications. To our

knowledge, no research exists comparing the various BRTs.

Objective:

To establish which BRT or BRT combination is fastest, least painful and associated with the lowest

complication rate for adult ED patients with anterior glenohumeral dislocations (AGDs).

Methods:

Adults presenting to the participating EDs with isolated AGDs, as determined by radiographs, will be

randomised to one of three BRTs - Cunningham, modified Milch or scapular manipulation.

Main study parameters/endpoints:

 ED length-of- stay

 Patients' self-report of pain

Secondary study parameters/endpoints:

 Procedure times

 Need for analgesic and/or sedative medications

 Iatrogenic complications

 Rates of successful reduction

Discussion:

Non-biomechanical AGD repositioning techniques based on traction and/or leverage are inherently

painful and potentially harmful. We believe that the three BRTs used in this study are more

physiologic, more patient-friendly, less likely to cause pain, more time efficient and less likely to

produce complications. By comparing these three techniques we hope to improve the care provided

to adults with acute AGDs by reducing their ED length-of- stay and minimizing pain and

procedure-

related complications. We also hope to define which of the three BRTs is quickest, most likely to be

successful and least likely to require sedative or analgesic medications to achieve reduction.

Keywords:

Anterior shoulder dislocation, glenohumeral dislocation, biomechanical reposition techniques,

Cunningham, modified Milch, scapular manipulation technique, length-of- stay, emergency

department, reduction rate

Study objective

We hypothesize that a low heart rate variability and baroreflex sensitivity in the pre- or postoperative phase are associated with orthostatic intollerance when compared to subjects with normal heart rate variability.

Study design

none

Intervention

None

Contacts

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Eligibility criteria

Inclusion criteria

Scheduled for hip or knee replacement surgery

Standard spinal anesthesia

Age between 18–90 years

Informed consent

Exclusion criteria

Heart rhythm other than sinus

History of orthostatic intolerance prior to surgery

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-05-2016

Enrollment:	100
Type:	Anticipated

Ethics review

Not applicable
Application type: Not applicable

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	NL5699
NTR-old	NTR5851
Other	: HRV-studie

Study results

Summary results
De resultaten zullen gepubliceerd worden