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

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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.

Ethische beoordeling	Niet van toepassing
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON23503

Bron
NTR

Verkorte titel
HRV

Aandoening

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

Ondersteuning

Primaire sponsor: Westfriesgasthuis
Maelsonstraat 3

1624 NP Hoorn
Overige ondersteuning: Financiering vakgroep anesthesie Westfriesgasthuis

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Heart rate variability

Toelichting onderzoek

Achtergrond van het onderzoek

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

Doel van het onderzoek

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.

Onderzoeksopzet

none

Onderzoeksproduct en/of interventie

None

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Scheduled for hip or knee replacement surgery

Standard spinal anesthesia

Age between 18–90 years

Informed consent

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Heart rhythm other than sinus

History of orthostatic intolerance prior to surgery

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-05-2016
Aantal proefpersonen:	100
Type:	Verwachte startdatum

Ethische beoordeling

Niet van toepassing

Soort:	Niet van toepassing

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL5699
NTR-old	NTR5851
Ander register	: HRV-studie

Resultaten

Samenvatting resultaten
De resultaten zullen gepubliceerd worden