Dynamische computer tomografie voor de beoordeling van de knie rotatie instabiliteit na posterior-lateraal hoekletsel.

Gepubliceerd: 14-04-2016 Laatst bijgewerkt: 18-08-2022

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

Samenvatting

ID

NL-OMON28733

Bron
NTR

Verkorte titel
DYCK

Aandoening

Posterolateral corner injury
Rotation instability
Knee
Computed Tomography (CT)

posterolateraal hoekletsel
rotatie instabiliteit
Knie
CT scan

Ondersteuning

Primaire sponsor: St. Antonius Hospital
Overige ondersteuning: fund = initiator = sponsor

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Difference in rotational stability in degrees as measured by dynamic-CT of intact compared to injured PLC knees.

Technical feasibility:
- Is the view of the scanner wide enough for a dynamic scan of the knee? During motion the centre of the knee should not move out of the image centre.
- Are the images of the knee large enough for the image processors to fit the knee coordinate systems onto the images?
- Is this method technical possible and feasible in the normal clinical setting and suited for daily clinical practice?

Toelichting onderzoek

Achtergrond van het onderzoek

Rationale: Posterolateral corner (PLC) injury is one of the most serious knee injuries in the young athlete. The PLC provides stability of the knee in rotation and varus stress. The reconstruction of the PLC complies two main goals, namely restoration of varus stability and restoration of rotational stability. Though, we cannot measure the rotational stability of the knee reliable for there is currently no reliable technique available. New generation Computed Tomography (CT) scanners (dynamic-CT) make it possible to assess moving joints in a quantitative manner. This technique might provide essential information of knee rotational stability before and in a later stage after PLC reconstruction and hereby, possibly prediction of patient satisfaction after PLC repair.

Objective: To assess the rotational stability of the knee using dynamic-CT scanning.

Study design: A feasibility study / pilot study. It will be a cross-sectional design, using the contralateral knee as control group (reference). A dynamic-CT scan will be performed of the injured as well as the uninjured knee to assess the differences in rotations.

Study population: 10 patients planned for PLC reconstruction surgery, with a unilateral symptomatic PLC deficiency will be included, 18-50 years of age.

Intervention: All participants will undergo one dynamic-CT scans of each knee, left and right, prior to PLC reconstruction.
Main study parameters/endpoints: Degrees of rotation (femur versus tibia) of the injured versus the uninjured knee. Is it possible to measure the present different using a dynamic-CT scan.

Onderzoeksopzet

one time point: preoperatively

Onderzoeksproduct en/of interventie

There will be no additional or altered treatment of the subjects. One dynamic-CT scan (diagnostic) of each knee will be performed.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

• Speak, understand and read Dutch.

• Uni-lateral symptomatic knee instability and PLC deficiency.

• Planned for PLC reconstruction surgery

• Symmetric (left- right) long leg axes

• Age between 18 – 50 years

• A written informed consent should have been signed

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

• Rheumatoid arthritis or systemic inflammatory disease

• Previous operation on the knee

• Symptomatic contra-lateral knee

• Prior injury to contra-lateral knee

• Pregnancy

• Patient is unwilling to participate

Onderzoeksopzet

Opzet

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

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-06-2016
Aantal proefpersonen:	10
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	NL5686
NTR-old	NTR5830
CCMO	NL57502.100.16

Resultaten