EMG in patients with a rotator cuff tear

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shoulder muscle activation and movements in patients having a rotator cuff tear is affected compared to healthy volunteers, matched for age, with no cuff tear.

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON27304

Bron
Nationaal Trial Register

Verkorte titel
TBA

Aandoening

rotator cuff tears

Ondersteuning

Primaire sponsor: none
Overige ondersteuning: NA

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

2 sets of EMG measurements will be taken while performing isometric and shoulder specific movements.

Toelichting onderzoek

Achtergrond van het onderzoek

Rationale: Patients with a rotator cuff tear have a different movement pattern and this eventually can lead to a pseudo paralysis. First it starts with alterations in muscle activation without effect on shoulder movement. Some studies are done to investigate the function of the remaining attached muscles, but most are not related to the movement of the shoulder. Also no control group, matched for age, with an intact rotator cuff was used. There is an indication that the long head biceps tendon has an important function as it is the remaining structure preventing the humeral head to migrate superiorly if the rotator cuff is torn. We try to investigate the effect of a cuff rupture on the remaining shoulder muscles in the older patient. Thereby it is hoped to find new methods for training and surgical options.

Objective: To compare the shoulder muscle activation and movements in patients having a rotator cuff tear with subjects, matched for age, with no cuff tear.

Secondary, within the group of patients with a rotator cuff tear, we will compare the shoulder muscle activation in patients with a massive rotator cuff tear (MRCT) with and without a pseudo paralysis.

Study design: a prospective case controlled study

Study population: Patients with a degenerative cuff tear (retraction Patte stage 2 or 3) confirmed on sonography or MRI. A control group is matched as a group on age with no cuff tear on sonography. A MRCT is defined as a 2 or 3 tendon rotator cuff tear or a tear with a diameter of > 5 cm. A pseudo paralysis is defined as being not able to abduct to 90 degrees.

Main study parameters:
2 sets of EMG measurements will be taken while performing isometric and shoulder specific movements.

Secondary parameters:
The objective and subjective shoulder function will also be evaluated by using specific shoulder and pain tests and questionnaires.

Also the health related quality of life is measured as it can influence the outcome.

Doel van het onderzoek

shoulder muscle activation and movements in patients having a rotator cuff tear is affected compared to healthy volunteers, matched for age, with no cuff tear.

Onderzoeksopzet

all measeruments are done bij 1st of October

Onderzoeksproduct en/of interventie

NA

Contactpersonen

Publiek

UMCG
EJD Veen

-

Wetenschappelijk

UMCG
EJD Veen

-

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

In order to be eligible to participate in this study, a subject must meet all of the following criteria:
- study group: having a rotator cuff tear confirmed on MRI or sonography
- control group: having no shoulder symptoms and no degenerative rotator cuff tear confirmed by sonography.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

A potential subject who meets any of the following criteria will be excluded from participation in this study:
- age <18 years
- Not able to understand the instructions in Dutch
- Rheumatoid arthritis

- Glenohumeral or AC osteoarthritis based on examination and/or X rays
- Previous surgery of the same shoulder
- Neurologic deficits inflicting the arm

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Parallel
Toewijzing:	Niet-gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Geneesmiddel

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	18-03-2019
Aantal proefpersonen:	20
Type:	Verwachte startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Ethische beoordeling

Positief advies

Datum:	18-03-2019
Soort:	Eerste indiening

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	NL7615
Ander register	METC UMCG : 2018/617

Resultaten