

EMG in patients with a rotator cuff tear

No registrations found.

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

Summary

ID

NL-OMON27304

Source

Nationaal Trial Register

Brief title

TBA

Health condition

rotator cuff tears

Sponsors and support

Primary sponsor: none

Source(s) of monetary or material Support: NA

Intervention

Outcome measures

Primary outcome

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

Secondary outcome

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

Study description

Background summary

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.

Study objective

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.

Study design

all measurements are done by 1st of October

Intervention

NA

Contacts

Public

UMCG
EJD Veen

-

Scientific

UMCG
EJD Veen

-

Eligibility criteria

Inclusion criteria

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.

Exclusion criteria

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

Study design

Design

Study type:	Observational non invasive
Intervention model:	Parallel
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active

Recruitment

NL	
Recruitment status:	Recruiting
Start date (anticipated):	18-03-2019
Enrollment:	20
Type:	Anticipated

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion	
Date:	18-03-2019
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	NL7615
Other	METC UMCG : 2018/617

Study results