Muscle tendon transfers for massive rotator cuff tears

Published: 14-09-2007 Last updated: 09-05-2024

In this project we will evaluate the potential (dis)advantages of the two transfers. Additionally we will focus on the underlying mechanisms of the massive cuff tear and a tendon transfer in an experimental set-up.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Musculoskeletal and connective tissue neoplasms
Study type	Observational non invasive

Summary

ID

NL-OMON31389

Source ToetsingOnline

Brief title MuTra

Condition

• Musculoskeletal and connective tissue neoplasms

Synonym tendon rupture, tendopathology

Research involving Human

Sponsors and support

Primary sponsor: Leids Universitair Medisch Centrum **Source(s) of monetary or material Support:** Ministerie van OC&W

Intervention

Keyword: cuff tears, tendon transfers

Outcome measures

Primary outcome

Pre-and post operative assessment consists of determining maximum arm Range of

Motion, pain and function scores and maximum arm force. To evaluate muscle

function changes, force direction depended electromyography, or principle

action, is used.

Secondary outcome

The extent in how well subjects perform the force tracking task used for the

EMG assessment is used as a parameter for arm motor control, which possibly

determinants successful outcome.

Study description

Background summary

Musculo-tendinous transfers of both latissimus dorsi (Gerber et al., 1988) and teres major muscle (Celli et al., 1998) have been successfully proposed as a treatment for irreparable rotator cuff tears (Celli et al., 2005,Degreef et al., 2005,Miniaci and MacLeod, 1999). This success was attributed to compensating glenohumeral stability, without counteracting the desired elevation moment (Warner and Parsons, 2001). Which tendon transfer results in the best functional outcome remains controversial, for the matter that one or the other might be more effective in certain shoulder pathologies; or will have similar functional improvement. A comparison between the two tendon transfers in a clinical study was never done.

Study objective

In this project we will evaluate the potential (dis)advantages of the two transfers.

Additionally we will focus on the underlying mechanisms of the massive cuff

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tear and a tendon transfer in an experimental set-up.

Study design

In a cross-sectional study patients with a teres major tendon transfer and a latissimus dorsi transfer are compared.

It is hypothized that glenohumeral stability is influenced by forces (muscles close to the joint), while mobility is influenced by moments (muscles relatively far from the joint). 20 patients with massive rotator cuff tears (latissimus dorsi transfer group), will pre-operative be tested in an experimental set-up with variations of external forces and moments applied to the arm. By separately applying external forces and moments on the arm, this hypothesis can be tested.

Study burden and risks

2,5 of arm tasks, inwhich overload can be the only burden. This will be prevented as much as possible by taking regular resting pauses.

Contacts

Public

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age Adults (18-64 years) Elderly (65 years and older)

Inclusion criteria

op MRI aangetoonde scheur supra/infraspinatus

Exclusion criteria

eerdere schouder chirurgie scheur subscapularis

Study design

Design

Study phase:	2
Study type:	Observational non invasive
Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Diagnostic

Recruitment

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NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	10-09-2007
Enrollment:	40
Туре:	Actual

Ethics review

Approved WMO

Application type:	First submission
Review commission:	METC Leids Universitair Medisch Centrum (Leiden)

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

 CCMO
 NL18289.058.07