Long-term outcomes and development of chondropathy after tibial tubercle distomedialisation for patellar maltracking and patella alta without instability: 10 year follow-up of a prospective cohort

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Ethical review	Approved WMO
Status	Completed
Health condition type	Joint disorders
Study type	Observational invasive

Summary

ID

NL-OMON53862

Source
ToetsingOnline

Brief title
TTT Follow-up study

Condition

- Joint disorders
- Bone and joint therapeutic procedures

Synonym
anterior knee pain, patellar maltracking

Research involving
Human

Sponsors and support

Primary sponsor: Noordwest Ziekenhuisgroep
Source(s) of monetary or material Support: onderzoekssubsidie vanuit de raad van bestuur van Noordwest Ziekenhuisgroep

Intervention

Keyword: chondropathy, long-term follow-up, patellar maltracking, tibial tubercle transposition

Outcome measures

Primary outcome

Degree of retropatellar chondropathy as classified by the Modified Outerbridge

Classification using the MRI-scan of the involved knee

Secondary outcome

Patella height which is determined using standard routine X-ray examination,

and scores on three PROMs: the Knee Injury and Osteoarthritis Outcome Score

(KOOS), the Kujala, and the visual analogue scale (VAS) for pain.

Study description

Background summary

Anterior knee pain is a common complaint, especially in younger and active adults. An obvious source for anterior knee pain is patellar maltracking, which is often associated with patella alta (a high-riding patella). Due to maltracking, the cartilage of the patella can face a greater amount of pressure, which can cause cartilage damage. When conservative treatment fails, a surgical intervention can be considered. One of the surgical options is performing a tibial tubercle transfer (TTT), where the patella is being distalized and medialized. As a result, the improvement in patellar tracking will reduce the pressure on the retropatellar cartilage. The TTT has been proven effective in patients with patellar instability but less is known about

patients without instability. Specifically, whether these patients face a higher risk of developing retropatellar cartilage damage (*retropatellar chondropathy*) due to this intervention is currently unknown.

Study objective

The primary aim of this study is to determine the incidence and the degree of retropatellar chondropathy 10 years after a TTT in patients with anterior knee pain without patellar instability. The secondary aim is to evaluate the long-term patient reported outcomes (PROMs) 10 years after a TTT in patients with anterior knee pain without patellar instability.

Study design

This is a 10-year follow-up of a prospective cohort.

Study burden and risks

Patients included in the study will be asked to fill out few PROMs. This will cost no more than 15 minutes in total. In addition, patients will have one MRI scan and standard routine radiological assessment of the involved knee performed. The study will not provide personal benefits to the participating patients, but future patients may benefit from the results of the study performed. Ultimately, this study will gain more insight in the long-term effects after a TTT.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

Age between 18 and 80 years
Participated in an earlier cohort study
Underwent a tibial tubercle transposition between 2012 and 2015
Preoperative MRI available

Exclusion criteria

No preoperative MRI is available
Patellar-related surgery after the initial surgery
Female patients that are (expecting to be) pregnant

Study design

Design

Study type: Observational invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Completed
Start date (anticipated):	18-11-2023
Enrollment:	32
Type:	Actual

Ethics review

Approved WMO Date:	08-06-2023
Application type:	First submission
Review commission:	METC Amsterdam UMC

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
ClinicalTrials.gov	NCT05629754
CCMO	NL82613.029.22