

Results of a trochlear osteotomy for patellar instability in patients with trochlear dysplasia: a 12 year follow-up

Published: 24-04-2014

Last updated: 20-04-2024

The aim of this study is to evaluate the long-term (12 year) results of the above described trochlear osteotomy. This objective can be further specified by the following: Do the results a trochlear osteotomy at 12 years follow-up remain identical to...

Ethical review	Approved WMO
Status	Will not start
Health condition type	Joint disorders
Study type	Observational invasive

Summary

ID

NL-OMON40795

Source

ToetsingOnline

Brief title

Trochlear osteotomy for patellar instability; a 12 year follow-up

Condition

- Joint disorders
- Bone and joint therapeutic procedures

Synonym

Patellar instability, unstable kneecap

Research involving

Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Sint Radboud

Source(s) of monetary or material Support: Eigen onderzoeksfonds afdeling Orthopedie

Intervention

Keyword: Dysplasia, Osteotomy, Patella, Trochlea

Outcome measures

Primary outcome

The following outcome parameters will be determined

- Function: Lysholm score (patient based)
- Function: Kujala score (patient based)
- Dutch Womac score (patient-based)
- Pain knee: VAS-pain
- Number of recurrent dislocations
- Number of postoperative complications
- Patellofemoral osteoarthritis according to the Iwano classification (Iwano et al, Clin Orthop Relat Res. 1990 Mar;(252):190-7)
- Tibiofemoral osteoarthritis according to the Kellgren classification

Secondary outcome

not applicable

Study description

Background summary

Patellofemoral instability (patellar dislocations) is a frequent problem in orthopaedic practice. In general, a patellar dislocation can be treated conservatively. However, in case of recurrent patellar dislocations an anatomic malformation might underly the instability. In this case an operative correction of this malformation is indicated. One of these malformation is trochlear dysplasia. In trochlear dysplasia the femoral trochlear groove is more shallow, which leads to less osseous restraint on the patella which tracks through the trochlear groove. Therefore the patella is allowed to track more laterally and even dislocate. This condition can be treated by a trochlear osteotomy in which an anterior open wedge osteotomy of the lateral femoral is performed. This open wedge osteotomy is secured by a small bone graft. We have been performing this technique over years with satisfactory results. In the past we have published the short (2 year) results (Trochlear osteotomy for patella instability: satisfactory minimum 2-year results in patients with dysplasia of the trochlea. Koëter et al. Knee Surgery Sports Traumatology and Arthroscopy (2007) 15:228-232). However it remains unclear what the long-term results are. In particular, the development of patellofemoral osteoarthritis as the tracking of the extensor mechanism of the knee has been altered. Therefore we want to describe the long term results (12 years) of a trochlear osteotomy in this group of patients.

Study objective

The aim of this study is to evaluate the long-term (12 year) results of the above described trochlear osteotomy.

This objective can be further specified by the following:

Do the results a trochlear osteotomy at 12 years follow-up remain identical to the results at 2 years follow-up or is there a change in the effect over time?

Do patients with a trochlear osteotomy develop patellofemoral osteoarthritis and/or tibiofemoral osteoarthritis?

Study design

The patients have all been included at the time of operation for this study (1995-2002). Recently, all patients were again approached if they still wanted to participate in this study and the vast majority has responded positively. Patients will be contacted for a single outpatient visit to the Radboud University Medical Center, Nijmegen.

The patients will be asked to fill out a number of function scores: VAS-pain, Lysholm and Kujala scores and a short interview will be conducted with regard to patellar instability and any procedure which might have been performed since the last follow-up. In addition, specific physical examination and additional conventional radiography of the operated knee are carried out (AP, lateral and skyline patella).

The results of this study will be described in a scientific article similar to the article in which the 2-year results were published (Trochlear osteotomy for patella instability: satisfactory minimum 2-year results in patients with dysplasia of the trochlea. Koëter et al. Knee Surgery Sports Traumatology and Arthroscopy (2007) 15:228-232).

Study burden and risks

The risks associated with this study consist of the risks of an AP, lateral and axial radiographs of the operated knee(s). The burden consists of a single outpatient visit to the Radboud University Medical Center where conventional radiographs of the knee(s) will be made and they will be interviewed and will undergo a physical examination.

Contacts

Public

Universitair Medisch Centrum Sint Radboud

Geert Grooteplein-Zuid 10
Nijmegen 6525 GA
NL

Scientific

Universitair Medisch Centrum Sint Radboud

Geert Grooteplein-Zuid 10
Nijmegen 6525 GA
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

The inclusion period already ended. All included patients were operated between June 1995 and October 2002 by an anterior lateral femoral osteotomy (trochlear osteotomy) because of trochlear dysplasia. No other procedures were performed simultaneously on the knee. This research is a follow-up after 12 years. All patients which have been operated upon will be contacted.

Exclusion criteria

Failure of meeting the inclusion criteria.

Study design

Design

Study type: Observational invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Treatment

Recruitment

NL

Recruitment status: Will not start

Enrollment: 16
Type: Anticipated

Ethics review

Approved WMO
Date: 24-04-2014
Application type: First submission
Review commission: CMO regio Arnhem-Nijmegen (Nijmegen)

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	NL48316.091.14