The efficacy and safety of intra-articular injections with the TNF-a antagonist infliximab in patients with chronic or recurrent arthritis of the knee.

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON24235

Source
NTR

Brief title
N/A

Health condition

recurrent or persistent inflammatory arthritis involving a knee (rheumatoid arthritis, juvenile chronic arthritis, spondylarthropathies and arthritis of unknown origin) despite corticosteroid injections intra-articular

Sponsors and support

Primary sponsor: department of rheumatology
Leids Universitair Medisch Centrum
Postbus 9600 RC Leiden
Source(s) of monetary or material Support: no

Intervention

Outcome measures

Primary outcome

The primary outcome measure is recurrence or persistence of knee arthritis as defined by either:

1. The need for local therapy such as joint aspiration or injection, arthroscopy or (radio-) synovectomy;

2. Non-improvement of knee joint score.

Secondary outcome

Clinical parameters:

1. The occurrence of (systemic) side effects;

2. Physician’s assessment of local disease activity as measured by joint swelling as well as pain (see appendix 2);

3. Patient’s functional status measured by a Health Assessment Questionnaire (HAQ);

4. Patient’s Visual Analogue Scales (VAS) for local and general pain and overall disease activity;

5. Physician’s assessment of overall disease activity (VAS);

6. Disease Activity Score (DAS28);

7. Morning stiffness;

8. A five-point global assessment scale measuring improvement or deterioration compared to baseline and the previous assessment (see appendix 3).

Laboratory parameters:

9. ESR, CRP, and IgM rheumatoid factor titer;

Radiological parameters:

10. MRI quantification of the synovial tissue volume (blinded and at random order).

Study description

Background summary

Rheumatic disorders of the joint are characterised by inflammation and hyperplasia of the synovial tissue(1).
The inflammation can lead to loss of function of the affected joint and finally to (irreversible) joint damage. The use of Disease Modifying AntiRheumatic Drugs (DMARDs) suppresses disease-activity and slows down the potentially irreversible damage of the joint and bone. Besides systemic therapy persistent inflammation of a (single) joint can also be treated with a local corticosteroid injection into the affected joint. Local therapy is preferred over systemic treatment because of the reduced chance of side effects. Although intra-articular corticosteroid injections are widespread and effective in reducing symptoms of the inflammation(2;3) some studies show less favourable results(4). Post-injection rest(3), removal of the synovial fluid before injection(4) and the choice of the injected steroid(5), all influence the duration of symptom relief.
The application of more than three injections into the same joint per year is advised against(6;8) because of the risk for procedure- and steroid associated side-effects like infection or local osteoporosis. In one study eight injections in two year were administered in patients with osteoarthritis(9).

In synovial biopsies of patients with rheumatoid arthritis (RA) an increased expression of inflammatory cytokines such as TNF-a is prominent(10;11). The pro-inflammatory cytokine TNF-a has a definite role in the induction and persistence of joint inflammation(12). Systemic treatment with anti-TNF-a has shown to be a very effective treatment for rheumatoid arthritis(13-16). In patients with a persistent monoarthritis an intra-articular injection with corticosteroids is the first choice of therapy. When the arthritis persists or relapses a reduction of inflammatory symptoms by intra-articular administration of anti-TNF-a seems a good option from a theoretical point of view. The outcome of intra-articular injections with anti-TNF-a (infliximab) was reported in a number of case reports with varying results. The results of 20 patients with an inflammatory arthritis are shown in Table 1(17;18)+ (22-24). In these case reports no (local) side effects were reported.

The volume of the synovium is directly correlated to the disease activity of the affected joint(19;20).When corticosteroids are administered into the joint the decrease of inflammatory symptoms is related to the volume of the synovial tissue as assessed by MRI-techniques(21). Magnetic Resonance Imaging is a safe and non-invasive way to image the joint with great sensitivity to detect a small change in synovial volume.

Study objective

The systemic treatment of rheumatoid arthritis with anti-TNF-a is very successful. In a number of case reports varying success rates of intra-articular injections with the TNF-a blocking agent infliximab have been reported. In this study we want to assess the safety and

efficacy of intra-articular injections with infliximab in patients with relapsing or persistent (mono-) arthritis of the knee.

Intervention

Treatment with infliximab 100mg intra-articular or methylprednisolon 80mg intra-articular.

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Eligibility criteria

Inclusion criteria

1. Inflammatory arthritis involving a knee (rheumatoid arthritis, juvenile chronic arthritis, spondylarthropathies and arthritis of unknown origin);br>
2. Age above 18;

3. Written informed consent;

4. At least two therapeutic corticosteroid injections in the affected joint within a period of one year.

Exclusion criteria

1. Hemorrhagic disease;

2. Arthritis due to infection, gout or osteoarthritis;

3. Participation in any other study which interferes with or is influenced by this study;

4. Use of oral prednisone in excess of 10 mg/day;

5. Recent change of DMARD-therapy (six weeks or less);

6. Intra-articular injection with corticosteroid less than two months ago (concerning all joints);

7. Hypersensitivity to methylprednisolone/triamcinolone, lidocain or infliximab (murine proteins) or i.v. contrast;

8. Active/ latent tuberculosis;

9. Acute/ chronic infection;

10. Multiple sclerosis;

11. Decompensatio cordis (NYHA classification III and IV);

12. Pregnancy or lactating females;

13. Malignancy;

14. Claustrophobia;

15. Pacemaker in situ / metal prostheses and/or vascular clips.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Masking:	Double blinded (masking used)
Control:	Active

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	16-09-2004
Enrollment:	40
Type:	Anticipated

Ethics review

Positive opinion

Date:	13-09-2005
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	NL345
NTR-old	NTR383
Other	: P04-139
ISRCTN	ISRCTN17726268

Study results

Summary results

N/A