

The use of ultrasound in hand osteoarthritis

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To identify (low-grade) inflammatory signs in patients with symptomatic hand OA using ultrasound. Secondary to investigate whether clinical symptoms such as pain and disability, and radiological status correlate with (low0grade) inflammation and...

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

Summary

ID

NL-OMON30978

Source

ToetsingOnline

Brief title

ECHO

Condition

- Joint disorders

Synonym

osteoarthritis

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: Hand osteoarthritis, Power Doppler, Synovitis, Ultrasound

Outcome measures

Primary outcome

All hand joints will be studied on pain, swelling and loss of function. All joints will be scored using ultrasound on whether signs of inflammation are present or not.

Analysis of the outcome measures of ultrasound findings of all painful hand joints will be compared to the outcome measures of non painful hand joints.

Correction of patient characteristics will take place.

A subanalysis will be performed within every patient. The outcome measures of the most painful joint (index joint) will be compared to a non painful osteoarthritic joint the contralateral hand preferably in the same joint or in the same row.

Secondary outcome

Secondary study parameters will be a semi-quantative score on inflammation (0 to 3) using ultrasound of each hand joint. This might give relevant and more detailed information, but reliability of outcome measures might diminish.

Also x-ray findings will be compared to clinical signs and ultrasound findings.

Study description

Background summary

Hand osteoarthritis is a high prevalent chronic condition that causes considerable morbidity. Many patients with hand osteoarthritis are using pain medication. A drug that slows down disease progression or cures the disease is not available at this moment.

At this moment radiographs of the hands are used to determine the severity of hand osteoarthritis, but this technique does not correlate well with symptoms such as pain. Earlier studies showed that alternative techniques such as MRI and ultrasound (mainly of knee osteoarthritis) did find a correlation between symptoms and (low-grade) inflammation of the osteoarthritic joint. The advantage of ultrasound is that it is feasible, has low costs and has minimal to no discomfort for the patient. Up till now hardly any research has been done concerning ultrasound of the hands in hand osteoarthritis.

Study objective

To identify (low-grade) inflammatory signs in patients with symptomatic hand OA using ultrasound. Secondary to investigate whether clinical symptoms such as pain and disability, and radiological status correlate with (low-grade) inflammation and other signs detected by ultrasound.

Study design

Patients referred by their general practitioner to the outpatient clinic of the department of rheumatology of the LUMC with hand osteoarthritis. In total 50 patients can participate. These patients will be asked to give 1 blood sample (10 ml) and to have a ultrasound of the hands performed. This besides normal patient care procedures (X-rays of the hands, blood tests, questionnaires and examination of the hand joints (this is regular care in all patients with osteoarthritis in our outpatient clinic performed by a specialised nurse who gives information and advice about osteoarthritis). This is a cross sectional observation study.

Study burden and risks

This study implies a low burden and risk associated with participation since it involves 1 extra blood sample (10 ml) and an ultrasound examination of the hands. This will take place during a outpatient visit which was already planned for regular care of osteoarthritis at the rheumatology outpatient clinic.

Contacts

Public

Leids Universitair Medisch Centrum

Albinusdreef 2
2333 ZA Leiden
Nederland
Scientific
Leids Universitair Medisch Centrum

Albinusdreef 2
2333 ZA Leiden
Nederland

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

Men or Women with hand osteoarthritis (according to ACR criteria)

Older than 45 years

Pain score 30 or more on VAS or visual analog function subscale of 225 or more of AUSCAN

Exclusion criteria

Concomitant rheumatic disease

Cutaneous psoriasis

Underlying disease known to cause OA

Rheumatoid factor or anti CCP antibody level above reference level

Intra articular injection of one of the hand joints with corticosteroids or oral corticosteroid use less than 1 month prior to investigation

Study design

Design

Study type: Observational non invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Basic science

Recruitment

NL

Recruitment status: Pending

Start date (anticipated): 01-10-2007

Enrollment: 50

Type: Anticipated

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

CCMO

ID

NL17809.058.07