

Effectiveness of exercise therapy in hip osteoarthritis

Submission date 26/03/2009	Recruitment status No longer recruiting	☐ Prospectively registered
		☐ Protocol
Registration date 07/04/2009	Overall study status Completed	☐ Statistical analysis plan
		☐ Results
Last Edited 07/04/2009	Condition category Musculoskeletal Diseases	☐ Individual participant data
		☐ Record updated in last year

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

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Study information

Scientific Title

Effectiveness of exercise therapy in hip osteoarthritis: a randomised controlled trial in primary health care

Study objectives

1. Patients with hip osteoarthritis (OA) can undergo an exercise-training programme despite their pain and disability

2. Strength and range of motion exercises and general aerobic conditioning can reduce hip pain and improve physical function more effectively than general treatment alone
3. Compliance of exercise therapy improves by using exercise diaries and leads to better long-term results
4. The exercise-training programme reduces the need of drug treatments and medical care of patients with hip OA more than general treatment alone

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics Committee of the Mikkeli Central Hospital approved on the 6th June 2005. Amendments approved on the 27th August 2007.

Primary study design

Interventional

Study design

Single centre randomised controlled trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Osteoarthritis of the hip

Interventions

The intervention group received 12 supervised, (once per week, sustaining 45 minutes), rehabilitation sessions at baseline and four additional booster sessions at a point one year later. A physiotherapist working in primary care led supervised rehabilitation sessions for exercise groups consisting of ten participants at any given time. Following supervision, participants were recommended to perform the exercises using the same protocol three times per week for 3 years.

The exercise programme was developed with common training principles as well as with the results of the other studies. It consisted of mainly strengthening exercises. The intensity of exercise training was not individually adjusted for each participant; they were recommended to perform strengthening exercise with maximum speed and power. Each training session started with a warm-up session with marching in place using arms as part of the movement for one minute. Stepping forward, backward, sideways in place for 2 minutes and finally cycling the legs in a supine position for 1 minute. The strengthening section included seven different exercises for hip and knee flexors, extensors, hip abductors and adductors and for pelvic and abdominal muscles for 30 - 35 minutes. The stretching section consisted of six different, analogue muscle flexibility exercises for hip, knee and ankle flexors and extensors and hip adductors, holding each position for 30 seconds with tailored intensity.

Participants in the GP-care group (no intervention) received standard care.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Self-reported pain and disease specific physical function were assessed by using the pain and functioning subscales of the WOMAC
2. Self-reported generic physical function was assessed by using the physical function score of the Finnish-validated SF-36 (36-item) Health Survey
3. Economic effectiveness was assessed by evaluating the number of doctor visits (associated with hip OA) and physiotherapy (sum score of using physiotherapy including exercise programme and/or inpatient rehabilitation associated with hip OA). The need of surgery (total hip replacement) and drug use (non-opioid analgesic (paracetamol, non steroidal anti-inflammatory drugs [NSAIDs]) and weak opioid (tramadol, codeine) concerning hip OA were also assessed.

Assessed at the following timepoints: 0, 3, 6, 12, 18, 24 and 36 months.

Key secondary outcome(s)

Objective functional scores:

1. Passive internal rotation and flexion of the hip joint
2. Extensor power of lower limb
3. Six Minute Walk Test (6MWT)
4. Ten-Metre Walk Test
5. Timed Up & Go (TUG) test
6. Sock Test

Assessed at the following timepoints: 0, 3, 12, 24 and 36 months.

Completion date

07/04/2009

Eligibility**Key inclusion criteria**

1. Both males and females, aged from 55 to 80 years
2. Unilateral or bilateral radiographic hip OA (X-ray less than 3 years old)
3. Pain experience in the hip region within the preceding month as indicated in the clinical criteria of the American College of Rheumatology

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Senior

Sex

All

Key exclusion criteria

1. Total hip replacement
2. Rheumatoid arthritis
3. Cognitive impairment
4. Major surgical operation within the preceding 6 months in the lower limb or lower back area
5. Acute or sub-acute lower back pain
6. Cardiovascular or pulmonary disease or some other chronic disease that would prevent full participation in the training programme

Date of first enrolment

04/07/2005

Date of final enrolment

07/04/2009

Locations**Countries of recruitment**

Finland

Study participating centre

Department of Physical and Rehabilitation Medicine

Kuopio

Finland

70211

Sponsor information**Organisation**

Mikkeli Central Hospital (Finland)

ROR

<https://ror.org/00te55z70>

Funder(s)**Funder type**

Hospital/treatment centre

Funder Name

Mikkeli Central Hospital (Finland)

Funder Name

Kuopio University Hospital (Finland)

Alternative Name(s)

Kuopio University Hospital, KYS

Funding Body Type

Private sector organisation

Funding Body Subtype

Universities (academic only)

Location

Finland

Funder Name

Kuopio University (Finland)

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not provided at time of registration