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Neurodynamic test in patellofemoral pain syndrome

Submission date
21/04/2015

Recruitment status
No longer recruiting

Registration date
20/05/2015

Overall study status
Completed

Last Edited
14/05/2019

Condition category
Musculoskeletal Diseases

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol

Background and study aims
Patellofemoral pain syndrome (PFPS) is a common disorder which describes pain in the front of the knee and around the kneecap. PFPS is sometimes called ‘runner’s knee’ or ‘jumper’s knee’ because it’s common in people who play sports. PFPS is most common in females and young adults. People with PFPS experience pain around the knee during both rest and physical activity. Triggers of pain include bending the knee, using stairs or taking part in sports or exercise. There is little agreement on the causes of PFPS, but it is thought to be caused by a misalignment within the knee and putting too much weight on the knee joint and surrounding area. Another explanation for the cause of PFPS is that the pain is caused by an irritated nerve located in either the lower back or possibly the thigh. The aim of this study is to gain a better understanding of PFPS and its causes. Patients diagnosed with PFPS in one knee will be tested for signs of altered nerve sensitivity in the affected knee compared to their unaffected knee. The results of this study might help shed light on the causes of PFPS.

Who can participate?
Adults having physiotherapy for PFPS.

What does the study involve?
Participants have a thorough screening examination to assess their condition and complete questionnaires. A physiotherapist carries out two movement tests on both knees and assesses pain levels using an established scoring system. The session takes around 90 minutes and is carried out in the physiotherapy clinic.

What are the possible benefits and risks of participating?
A benefit of taking part in this study is that all participants will have a thorough assessment of their knee problems. There are no specific risks to participants.

Where is the study run from?
Hans & Olaf Physiotherapy Centre (Hans & Olaf Fysioterapi) (Norway)

When is the study starting and how long is it expected to run for?
January 2010 to October 2010

Who is funding the study?
Norwegian Fund for Postgraduate Training in Physiotherapy (Norway)

Who is the main contact?
Ms K Vegstein

Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
N/A

Study information

Scientific Title
Neurodynamic test in patellofemoral pain syndrome: a pilot study

Study objectives
Is there increased mechanosensitivity in the femoral nerve in patients with unilateral PFPS (patellofemoral pain syndrome)?

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. University of Bergen, 2010.
2.REK (Regional Committee for Medical and Health Research Ethics), Norway.

Study design

Cross sectional pilot study

Primary study design
Observational

Secondary study design
Cross sectional study

Study setting(s)
Hospital

Study type(s)
Diagnostic

Participant information sheet
Not available in web format, please use contact details to request a participant information sheet.

Health condition(s) or problem(s) studied
Patellofemoral pain syndrome

Interventions
Neurodynamic testing of the femoral nerve:
1. Butler prone knee bend (PKB) test
2. Butler slump knee bend (SKB) test
3. Maitland Posterior- Anterior (PA) unilateral movement. test for lumbar segmental pain

Intervention Type
Other

Primary outcome measure
Levels of pain experienced during neurodynamic testing, assessed using a numeric pain scoring system.

Secondary outcome measures
PA unilateral test to investigate whether patients suffer from back pain on the PFPS affected side.

Overall study start date
01/01/2010

Completion date
31/10/2010

Eligibility

Key inclusion criteria
1. Adults aged 18–44 diagnosed with unilateral PFPS
2. Patients with a pain history of more than 3 months (i.e. chronic pain) and which is experienced during rest and/or during physical (e.g. pain when doing knee bends, using stairs or taking part in

sports or exercise activities).
3. Patients able to carry out normal daily activities

Participant type(s)
Patient

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
12

Total final enrolment
12

Key exclusion criteria
1. Patients with known intraarticular disorders or other systemic pathological conditions
2. Patients who have undergone previous surgery or suffered knee trauma in the affected leg
3. Patients who have received knee injections within 3 months of taking part in the trial

Date of first enrolment
01/05/2010

Date of final enrolment
30/08/2010

Locations

Countries of recruitment
Norway

Study participating centre
Hans & Olaf Physiotherapy Clinic (Hans & Olaf Fysioterapi)
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Sponsor information

Organisation
Norwegian Fund for Postgraduate Training in Physiotherapy (Norway)

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Sponsor type
Government

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Funder(s)

Funder type
Government

Funder Name
Norwegian Fund for Postgraduate Training in Physiotherapy (Norway)

Results and Publications

Publication and dissemination plan
We hope to publish a paper in the Journal of Manual and Manipulative Therapy.

Intention to publish date
01/06/2015

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	08/05/2019	14/05/2019	Yes	No