# Interdisciplinary treatment following hyperextension trauma of the finger.

No registrations found.

**Ethical review** Positive opinion

**Status** Pending

Health condition type -

**Study type** Interventional

# **Summary**

### ID

NL-OMON21696

**Source** 

NTR

**Brief title** 

**PIPD** 

### **Health condition**

- 1)Health condition: volar plate lesion, PIPJ dislocation, hyperextension trauma
- 2)Problem studied:
- a) The feasibility of the new developed protocol, after PIPJ dislocation regarding:
- Equipment
- Procedure
- Integrated co-ordination of the treatment between the primary care specialist, the handsurgeon and the hand therapist.
- b) Potential benefit of the protocol in patients with PIPJ dislocation problems, regarding:
- function, activity and participation level.

### **Sponsors and support**

Primary sponsor: Adelante, Centre of Expertise in Rehabilitation and Audiology, Zandbergsweg 111 6432 CC Hoensbroek the Netherlands

**Source(s) of monetary or material Support:** Adelante Rehabilitation Center, Zandbergsweg 111 6432 CC Hoensbroek the Netherlands

### Intervention

### **Outcome measures**

### **Primary outcome**

The specialist and therapeutic experiences regarding:

- the interdisciplinary collaboration,
- the equipment used,
- the procedure including timing and frequency of measurements.

### **Secondary outcome**

The 'order of magnitude' of the potential benefit of the protocol in patients with PIPJ dislocation problems, the following outcome measures will be described: the parameters of function, activity and participation level of the patient. The parameters include the active range of motion (AROM), pain using the numeric pain rating scale (NPRS) and scores of the Quick Dash and the Jamar dynamometer for grip strength.

# **Study description**

### **Background summary**

Objective: To subsequently evaluate the feasibility of this new interdisciplinary comprehensive protocol for the treatment of proximal interphalangeal joint (PIPJ) dislocation, including specialist care, hand therapist treatment and its enhancement of interdisciplinary

collaboration.

Study design: Evaluating the feasibility of the new approach after PIPJ dislocation by conducting a pilot study. Collecting the experiences of the specialist or therapist using the 'Think aloud' principle at the end of the pilot study. For the 'order of magnitude' of the potential benefit for the patients in total 3 month, the patients' function, activity and participation level will be measured.

Study population: In this study six patients older than 18 years after PIPJ dislocation, hyperextension trauma or with volar plate lesion eligible to take part in a conservative treatment program, will be asked to participate. Participants will be recruited at the emergency departments of Zuyderland MC Heerlen as soon as possible post-injury

Main study parameters:

- 1) Open interview, 'Think aloud' of the expert experiences with the new protocol.
- 2) The parameters of function, activity and participation level of the patient include: the active range of motion (AROM), the numeric pain rating scale (NPRS), the Quick Dash and the Jamar dynamometer for grip strength.

Nature and extent of the burden and risks associated with participation, benefit and group relatedness: The patients after PIPJ dislocation may benefit from this study in getting faster the right therapy to prevent complications as flexion contracture and to reactivate the function of the finger as soon as possible after trauma.

All measures used in the present study pose no harm to the participants. They are also used as regular clinimetrics in rehabilitation.

### Study objective

The new interdisciplinary protocol will attract attention to these cases of hand injuries and patients will get a chance of a better coordinated treatment at the early rehabilitation phase. To restore early function of the hand proper instructions of the hand therapist and professional monitoring is necessary.

Direct referral to the hand therapist can provide complications as flexion contractures of the affected finger.

### Study design

- T0= as soon as possible post-injury until maximum 3 weeks after injury: Using the numeric pain rating scale (NPRS), a goniometer with the neutral-0 method for active range of motion (AROM) and the Quick Dash to measure functional impairment also on activity and participation level.
- T1= after 6 weeks post injury: the NPRS and the AROM

- T2= after 8 weeks post injury: the same measurements as T0.
- T3= after 10 weeks post injury: the same measurements as T3.
- T4= after 3 month: the same measurements as T0 plus the Jamar dynamometer for grip strength.

### Intervention

Participants after PIPJ-dislocation will follow the new structured interdisciplinary treatment protocol, based on existing conservative treatment approaches, to evaluate this process with experts and to evaluate the potential benefits for patients after PIPJ-dislocation.

Treatment protocol:

Within the first 1 to 7 days (till maximum 3 weeks) after PIPJ dislocation it is recommended to stabilize the PIPJ, also if there is no fracture visible. The casting material needs to be applied at the dorsum of the hand to stabilize in full extension or maximum 15 degrees of flexion and to allow active flexion of the finger. To reduce edema of the finger and the joint an elevation position of the hand is recommended and exercises as flexion and extension of the finger. The function (e.g. pain, mobility) of the finger will be supervised by the hand therapist.

# **Contacts**

### **Public**

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# **Eligibility criteria**

### Inclusion criteria

- PIPJ-dislocation
- Volar plate lesion
- Hyperextension trauma
- Clinically diagnosed with x-ray:
- Avulsion fracture less than 30-40% of the joint surface.
- Age: > 18 years
- Post-injury time of 0-3 weeks (acute group)
- Ability to understand the Dutch language.

### **Exclusion criteria**

- Avulsion fracture more than 40 % of the joint surface.
- Surgical indication of the PIP-joint
- Post-injury time more than 3 weeks (sub-acute of chronical group)
- Other pathology: acute complex regional pain syndrome (CRPS), inflammatory arthritic conditions, or artificial joints

# Study design

# Design

Study type: Interventional

Intervention model: Parallel

Allocation: Non controlled trial

Masking: Open (masking not used)

Control: N/A, unknown

### Recruitment

NL

Recruitment status: Pending

Start date (anticipated): 01-06-2017

Enrollment: 6

Type: Anticipated

# **Ethics review**

Positive opinion

Date: 26-05-2017

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 NL6295 NTR-old NTR6469

Other METC Z: 17-N-76

# **Study results**