

Trial Description

Title

A novel treatment for osteochondritis dissecans of the knee

Trial Acronym

doorstop phenomenon

URL of the trial

[---]*

Brief Summary in Lay Language

Osteochondritis dissecans (OCD) is an affection of bone and cartilage in the knee in children and is relatively common but little is known about the development of the condition. Conservative treatment with rest and analgesia is applied in the majority of cases but some children continue to have persistent symptoms beyond one year and indeed rates of up to 50% failure with nonsurgical techniques have been reported. The incidence of OCD is increasing in children as the participation in sporting activity, intensity and specialisation increases in this population. The development of the disease has been discussed for many years and factors such as genetic predisposition, microtrauma and vascular compromise have been suggested as the cause for OCD. The association of OCD with large menisci is also well described. During the treatment of OCD lesions at our centre by methods such as internal fixation it became clear to us that many of these are associated with meniscal instability. We hypothesised then that this mechanical instability could be the cause for the OCD whereby the unstable meniscus acts like a 'doorstop'. We thought that the free peripheral edge of the loose meniscus, which is the thicker end of the meniscal wedge, gets trapped between the thigh and shank as the knee goes from flexion to extension causing a pathological force on to the thigh. This is also a function of time and activity of the patient and indeed most of the patients we see with this are high level sports men and women, as also reported in the literature. In order to test this hypothesis we decided to treat patients who have OCD lesions and meniscal instability with meniscal stabilisation only and no direct treatment to the OCD lesion itself.

- 1. Suturing and therefore stabilisation of meniscus decreases pain.**
- 2. The OCD is healing after a stabilisation.**
- 3. The etiology of an OCD is an impingement of meniscus with the femoral condyle.**

Brief Summary in Scientific Language

Osteochondritis dissecans (OCD) in the knee in children is relatively common but little is known about the aetiology of the condition. Conservative treatment with rest and analgesia is applied in the majority of cases but some children continue to have persistent symptoms beyond one year and indeed rates of up to 50% failure with nonsurgical techniques have been reported. The incidence of OCD is increasing in children as the participation in sporting activity, intensity and specialisation increases in this population.

The aetiology has been discussed for many years and factors such as genetic predisposition, microtrauma and vascular compromise have been suggested as the cause for OCD. The association of OCD with discoid menisci is also well described. During the treatment of OCD lesions at our centre by methods such as internal fixation it became clear to us that many of these are associated with meniscal instability. We hypothesised then that this mechanical instability could be the cause for the OCD whereby the unstable meniscus acts like a 'doorstop'. We thought that the free peripheral edge of the loose meniscus, which is the thicker end of the meniscal wedge, gets trapped between the tibial and femoral condyle as the knee goes from flexion to extension causing a pathological force on to the convex femoral condyle. This is also a function of time and activity of the patient and indeed most of the patients we see with this are high level sports men and women, as also reported in the literature. In order to test this hypothesis we decided to treat patients who have OCD lesions and meniscal instability with meniscal stabilisation only and no direct treatment to the OCD lesion itself.

- 1. Suturing and therefore stabilisation of meniscus decreases pain.**
- 2. The OCD is healing after a stabilisation.**
- 3. The etiology of an OCD is an impingement of meniscus with the femoral condyle.**

Organizational Data

- DRKS-ID: **DRKS00003532**
- Date of Registration in DRKS: **2012/07/24**
- Date of Registration in Partner Registry or other Primary Registry: [---]*
- Investigator Sponsored/Initiated Trial (IST/IIT): **yes**
- Ethics Approval/Approval of the Ethics Committee: **Approved**
- (leading) Ethics Committee Nr.: **17/12 , Ethikkommission beider Basel**

Secondary IDs

Health condition or Problem studied

- ICD10: **M93.2 - Osteochondritis dissecans**

Interventions/Observational Groups

- Arm 1: **Stabilisation of meniscus instability. Osteochondritis itself is not treated**

Characteristics

- Study Type: **Interventional**
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Study Type: **Interventional**

Study Type Non-Interventional: [---]*

- Allocation: **Single arm study**
- Blinding: **Open (masking not used)**
- Who is blinded: [---]*
- Control: **Uncontrolled/Single arm**
- Purpose: **Treatment**
- Assignment: **Single (group)**
- Phase: **N/A**
- Off-label use (Zulassungsüberschreitende Anwendung eines Arzneimittels): **N/A**

Primary Outcome

**MRI of OCD postops
Hughes Classification
Before operation and every 4 month post operative**

Secondary Outcome

**Pain: VAS (Visual Analog Scale)
Funktion of knee: IKDC-Score, Hughston score
Evaluation before and every 6 weeks post operative.**

Countries of recruitment

- CH **Switzerland**

Locations of Recruitment

- University Medical Center **Orthopädie, Basel**

Recruitment

- Planned/Actual: **Planned**
- (Anticipated or Actual) Date of First Enrollment: **2012/08/01**
- Target Sample Size: **10**
-



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Target Sample Size: **10**

Monocenter/Multicenter trial: **Monocenter trial**

■ National/International: **National**

Inclusion Criteria

■ Gender: **Both, male and female**

■ Minimum Age: **10 Years**

■ Maximum Age: **18 Years**

Additional Inclusion Criteria

**Known OCD in MRI with max. lesion IVa (Hughes)
Symptoms treated at least 6 month prior without clinical melioration
Both genders, healthy.**

Exclusion criteria

**Known OCD in MRI with lesion IVb (Hughes)
Diabetes mellitus, anemia, problems with coagulation.
Other intervention to the same knee.**

Addresses

■ **Primary Sponsor**

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■ **Contact for Scientific Queries**

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Sources of Monetary or Material Support

■ Institutional budget, no external funding (budget of sponsor/PI)

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Status

■ Recruitment Status: **Recruiting ongoing**

■ Study Closing (LPLV): [---]*

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Trial Publications, Results and other documents

* *This entry means the parameter is not applicable or has not been set.*

*** *This entry means that data is not displayed due to insufficient data privacy clearing.*