

Assessing the outcome of Osgood-Schlatter disease in male youth elite football players; a prospective cohort study

Gepubliceerd: 04-01-2021 Laatste bijgewerkt: 18-08-2022

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Ethische beoordeling	Niet van toepassing
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON23554

Bron

NTR

Verkorte titel

TBA

Aandoening

Osgood-schlatter disease

Ondersteuning

Primaire sponsor: UMC locatie AMC

Overige ondersteuning: -

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Self-reported improvement

Toelichting onderzoek

Achtergrond van het onderzoek

The aim of this prospective cohort study is threefold: 1) to assess the outcome of OSD in male youth football players, 2) to determine possible prognostic factors for OSD outcome, and 3) to determine possible prognostic factors for time to complete resumption of sports.

Doel van het onderzoek

- Higher VAS pain scores, higher KOOS-Child scores, lower strength and flexibility scores, and more neovascularisation in the patellar tendon are associated with slower self-reported improvement (and longer duration of injury and therefore time-loss).
- There is a positive relation between VAS pain scores and Doppler activity in the patellar tendon.

Onderzoeksopzet

Once diagnosed OSD, participants will be subjected to a baseline measurement. The baseline measurement will consist of anthropometrics, a baseline questionnaire, the Knee injury and Osteoarthritis Outcome Score for Children (KOOS-Child), VAS pain scores upon palpation and during pain provocation tests, flexibility and strength measurements, and ultrasonic imaging of both knees. Participants will be closely monitored during follow-up measurements each other week in order to assess the course of their injury. The follow-up measurements consist of a follow-up questionnaire, the KOOS-Child, VAS pain scores upon palpation and during pain provocation tests, flexibility and strength measurements, and ultrasonic imaging of both knees. The fortnightly follow-up will last until a player completely resumes their football activity at the club. All participants, with or without complete resumption of football activities, are subjected to the quarterly follow-up measurements at weeks 12, 24, 36, and 48. The primary outcome for this study will be the self-reported improvement, which is part of the follow-up questionnaire, after 12 weeks. Secondary outcome measures are anthropometrics, KOOS-Child score, VAS pain scores, time to complete resumption of sports, strength and flexibility scores, Ehrenborg stage, and Doppler activity.

Body weight, standing height, and sitting height will be measured each quarter. Age peak height (APHV) will be calculated. The clinical examination will be conducted by a clinician and will consist of pain provocation tests, flexibility tests, and strength tests. Both knees of athletes presenting with anterior knee pain will be palpated at five points of the tibial

tuberosity (central, medial, lateral, superior, and inferior). Two additional pain provocation tests will be executed. Firstly, passive maximum flexion of the knee in prone position to assess stretch pain at the tibial tuberosity. Secondly, pain at the tibial tuberosity on resisted isometric hip flexion with both extended knee and 90° knee flexion will be assessed. Pain during each pain provocation test will be quantified using a visual analogue scale (VAS) pain score. Hamstring, quadriceps, gastrocnemius, and soleus flexibility will be measured in a standardised fashion. A digital inclinometer (Baseline evaluation instruments Digital Inclinometer type 12-1057) will be used to determine the articular angles. Hamstring, quadriceps, hip abductor, and hip adductor strength will be measured in a standardised fashion. To quantify the strength, a handheld dynamometer (HHD, Biometrics MicroFET 2 wireless) will be used. For each muscle group, the best of three results will be documented. After diagnosis, both knees will be examined by means of ultrasound imaging, using a linear probe. Longitudinal views of the distal insertion of the patellar tendon will be recorded on a 90° flexed knee. The maturation stage of the tibial tuberosity will be determined using the Ehrenborg classification. Neovascularisation will be assessed using Doppler flow. The pressure of the probe will be kept to a minimum to prevent compression of small vessels. Neovascularisation will be graded using a modified version of the method that was used by Gisslén and Alfredson (2005) in order to quantify blood flow in the patellar tendon of volleyball players diagnosed with jumper's knee. This modified semi-quantitative scale looks as follows: 0, no flow; 1, one or two vessels inside the tendon; and 2, three or more vessels inside the tendon. A distinction will be made between grade 1 and 2 neovascularisation.

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Subjective pain during sports or activities of daily living
2. Confirmed by pain provocation during clinical examination:
 - Pain localised at the tibial tuberosity that increases upon palpation, or
 - Pain localised at the tibial tuberosity upon resisted knee extension

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Concomitant injury that impedes following the treatment program

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland	
Status:	Werving gestart
(Verwachte) startdatum:	04-01-2021
Aantal proefpersonen:	80
Type:	Verwachte startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nee

Ethische beoordeling

Niet van toepassing

Soort:

Niet van toepassing

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL9190
Ander register	METC AMC : W20_527 # 20.584

Resultaten