Posterior Tibial Tendon Transfer in Foot Drop; Description and Analysis of the Circumtibial Route

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To assess the range and strength of dorsiflexion of the ankle and the percentage of AFO-use after executing a variation on the circumtibial route of the posterior tibial tendon transfer, performed in our center on patients with foot drop.

Ethical review	Not approved
Status	Will not start
Health condition type	Peripheral neuropathies
Study type	Observational non invasive

Summary

ID

NL-OMON56697

Source
ToetsingOnline

Brief title
Posterior Tibial Tendon Transfer in Foot Drop

Condition

- Peripheral neuropathies
- Bone and joint therapeutic procedures

Synonym
Foot drop, peroneal nerve palsy

Research involving
Human

Sponsors and support

Primary sponsor: Leids Universitair Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Foot drop, Orthopedic surgery, Peroneal palsy, Tendon transfer

Outcome measures

Primary outcome

The need for AFO after surgery compared to before surgery.

Secondary outcome

Active dorsiflexion of the ankle after tendon transfer surgery compared to before surgery. Furthermore, pain, range of motion of the ankle, muscle strength of the ankle, limitations during daily life activities and complications

Study description

Background summary

Foot drop is an invalidating loss of dorsiflexion of the ankle as a result of damage of the peroneal nerve. For years a transfer of the posterior tibial tendon has been a surgical options for patients with foot drop. The goal of this type of surgery is to restore dorsiflexion limiting the dependence from ankle-foot orthoses (AFO). Most surgeons perform a tibial tendon transfer trough the interosseous membrane. As an alternative, the circumtibial route of posterior tibial tendon transfers has been described in patients suffering from leprosy. This technique is easier to perform, and has potentially similar results with a lower complication rate. In our center, the circumtibial route has been the standard surgical approach, but literature lacks studies in traumatic foot drop patients. Our hypothesis is that the circumtibial route offers a safe surgical technique that significantly restores ankle dorsiflexion resulting in a reduced dependency on AFO.

Study objective

To assess the range and strength of dorsiflexion of the ankle and the percentage of AFO-use after executing a variation on the circumtibial route of the posterior tibial tendon transfer, performed in our center on patients with

foot drop.

Study design

Case series

Study burden and risks

There are no risks associated with participation.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Patient with a drop foot due to a traumatic peripheral nerve injury treated with a posterior tibial tendon transfer.

Exclusion criteria

• No informed consent
• Central neurological disorders (e.g. cerebrovascular events, leprosy)
• Previous surgery such as ankle arthrodeses or other operations or disabilities influencing ankle function.
• History of a malignancy in the affected limb
• History of muscle dystrophy or metabolic disease
• History of rheumatoid arthritis
• Insufficient Dutch language skills.

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Will not start
Enrollment:	30
Type:	Anticipated

Ethics review

Not approved

Date:	26-03-2024
Application type:	First submission
Review commission:	METC Leiden-Den Haag-Delft (Leiden)
	metc-ldd@lumc.nl

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
CCMO	NL84161.058.23