Optimaal gebruik van Botuline toxine voor efficiënte behandeling van chronische anale fissuren

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON20571

Source
Nationaal Trial Register

Brief title
BOTULINEX

Health condition

Chronic anal fissure

Sponsors and support

Primary sponsor: UMCG
Source(s) of monetary or material Support: De 1e geld stroom

Intervention

Outcome measures

Primary outcome

Treatment efficacy estimated via healing rate and no long-term recurrance.

Secondary outcome

Secondary study parameter(s):
- safety of the treatment, defined by side effects known from previous studies (temporary: incontinence for flatus, soiling, fecal incontinence), will be approached using de DeFeC questionnaire and anamneses.
- changes of anorectal physiology will be approached using the anorectal physiology tests
- the socioeconomic efficiency (including QoL) will be evaluated using the EuroQoL-5D-5L and iMSQ instruments.
All the secondary outcomes will be measured on a short and long term (8-10 weeks and 12 months after treatment, respectively).

Study description

Background summary

Rationale: Patients suffering chronic anal fissures are treated with botulin toxin injected to the anal sphincter. This procedure is done with the intention to relax the sphincter, which should further decrease the chronically elevated anal basal pressure, and consequently, should allow the healing of the anal fissure and release a patient from anal pain. The current standard care is however not efficient; the fissure does not completely heal in approximately 30% of patients and additionally around 50% of patients come back with a recurrence problem. We think that this suboptimal efficacy of the treatment results from the fact that the current guidelines for medical specialists do not take into account that the anal sphincter consists of two parts: the internal anal sphincter, which is a smooth muscle, and the external anal sphincter, which is a stratified muscle. Botulin toxin has been proven to relax only stratified muscles, and not smooth muscles. Consequently, the wished relaxation of anal sphincter can happen only then when the botulin toxin is injected specifically into in the external sphincter, and not just to the generally speaking anal sphincter. Moreover, most of the medical specialists intend to inject the botulin toxin to either so called intersphincteric plain or into the internal anal sphincter. The intention to apply botulin toxin in the intersphincteric plain results from the fact the guidelines for medical specialists do not specify the place of injection, so the doctors apply the medicine ‘’in-between’’ the two parts of the sphincter. The intention to target botulin toxin in the internal sphincter results from the fact that until recently only the internal sphincter was known to contract involuntary. Therefore, it has been assumed that an increased involuntary contraction of internal sphincter contributes to the chronically elevated anal basal pressure and in this way prevents healing of anal fissure. The pressure of the internal anal sphincter is however hardly ever mentioned in the current literature and it is commonly repeated in the literature that the etiology of the increased anal basal pressure and chronic anal fissure is unclear. Importantly, in 2014 also the external anal sphincter has been shown to be able to contract involuntarily but still, the outdated dogma about the role of internal sphincter in the etiology of anal fissure is dominant and influences the current standard care.
Medical specialists argument their chose, regarding the localization of botulin toxin injection, based on the feedback of patients, where some of the patients do report clinical improvement. The improvement results possibly from the fact the botulin toxin can diffuse,

and therefore, a part of it can diffuse from the internal sphincter or more likely from the intersphincteric plain to the external sphincter. The dose which diffuses is however too low to efficiently treat this chronic condition. The current standard care seeks thus a clinical evidence to be optimized.

Study objective

Botulin toxin driven treatment ylieds the highest efficacy when injected into the external anal sphincter.

Study design

The primary outcome is decreased anal basal pressure, anal pressure evaluated at the level of the external anal sphincter and at the level of the internal anal sphincter before and after treatment (on a short- and long term, 8-10 weeks and 12 months after treatment, respectively). Also treatment efficacy belongs to the primary outcome. This composite outcome consists of symptomatic improvement, measured on a short and long term (8-10 weeks and 12 months after treatment, respectively) and recurrence rate (measured on a long term: 12 months after treatment). All the primary outcomes will also be collected before the treatmentm for the baseline.

Intervention

Randomisation (injection into the external anal sphincter or to the internal anal sphincter), endoanal ultrasound

Contacts

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Eligibility criteria

Inclusion criteria

In order to be eligible to participate in this study, a subject must meet all of the following criteria:
- ≥18 years old
- have chronic anal fissure
- are referred for treatment with botulin toxin injections for treatment of CAF
- understand Dutch language
- sign inform consent

Exclusion criteria

A potential subject who meets any of the following criteria will be excluded from participation in this study:
- no given inform consent
- mental retardation
- severe operations in the region of anal sphincter, which might impair the function of the internal or external anal sphincter.
- any disease altering function of anal sphincter, including Hirschsprung disease, anorectal malformations, diabetes myelitis and peripheral neuropathy
- pregnancy

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Active

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-09-2020
Enrollment:	150

Type: Anticipated

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Not applicable
Application type: Not applicable

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	NL8555
Other	Reserach Register UMCG (Utopia) : 202000195

Study results