The Delphi Trial - I(RCT)².

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1. Is an early surgery treatment strategy in neurological intact patients, with rheumatoid arthritis and radiological signs of craniocervical pathology, (cost-) effective when compared to prolonged conservative treatment? What is the time-...

Ethische beoordeling	Positief advies
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON21485

Bron
NTR

Verkorte titel
The Delphi Trial - I(RCT)²

Aandoening

Rheumatoid arthritis, atlantoaxial subluxation without neurological deficits.
AADI 5-12 mm

Ondersteuning

Overige ondersteuning: Dutch Arthritis Association (Reumafonds)
Cervical Spine Research Society (CSRS)

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The primary outcome is the occurrence of a major event:
1. Neurological disability (paraesthesias, worsened Myelopathy Disability Index > 3 points);
2. Radiological progression (signs of myelopathy on MRI, impression of brainstem by vertical

translocation, AADI > 12 mm, Vertical translocation);
3. Surgery (B) or resurgery (A) in case of progression to a stadium that longer wait and see will result in inevitable neurological deficit or death;
4. Death (all causes).

Toelichting onderzoek

Achtergrond van het onderzoek

Rheumatoid arthritis is a chronic inflammatory disease, which affects 1% of the population (1). Hands and feet are most commonly involved in the disease followed by the cervical spine (17-86%) (2). The spinal column consists of vertebrae stabilized by an intricate network of ligaments. Especially in the cervical spine, rheumatoid arthritis can cause degeneration of these ligaments, causing laxity, instability and subluxation of the vertebral bodies. Subsequent compression of the spinal cord and medulla oblongata can cause severe neurological deficits and even sudden death. Once neurological deficits occur, progression is inevitable although the rapidity of progression is highly variable (1). The first signs and symptoms are pain at the back of the head caused by compression of the major occipital nerve, followed by loss of strength of arms and legs. The degree of subluxation can be observed with radiological investigations (MRI, CT) with a high sensitivity. In order to prevent progression of neurological impairments, surgery can be performed aiming at fixation of the first and second vertebrae, sometimes in combination with the occiput.

There is an ongoing international discussion about the best timing of surgery, because of the unknown rate of progression of the subluxation and neurological deficits. In some countries patients are operated on in an early stage of the disease when no neurological impairments have occurred yet. In the Netherlands and United Kingdom the current policy is to operate after the onset of neurological signs and symptoms. If myelopathic deficits are present there is little chance of recovery to normal levels after surgery. Early surgery has peri-operative morbidity and causes loss of rotation of the head and neck.

In this multicenter study we want to analyze which strategy of treatment has the best outcome. There will be two groups: 1. early surgery without neurological complaints but with radiological evidence of cervical spine involvement, and 2. a 'wait and see' policy. The hypothesis is that with early surgery progression of the disease within the cervical spine can be prevented and people will remain ambulant for an extended period. By randomizing this multicenter international study we will analyze which of the two strategies of treatment is the optional one with respect to the functional neurological outcome.

Doel van het onderzoek

1. Is an early surgery treatment strategy in neurological intact patients, with rheumatoid arthritis and radiological signs of craniocervical pathology, (cost-) effective when compared to prolonged conservative treatment?

What is the time-dependant Hazard-Ratio of the surgical group compared to the conservative treatment group? Hazard is defined as severe neurological deficit or death.

During the explorative analyses the next questions will be answered.
2. Is it possible to define subgroups, which benefit most from one of the allocated treatment strategies?
3. Does the type of C1C2 fixation influence the fusion rate and result in the surgical group?

Onderzoeksproduct en/of interventie

Surgical treatment: Different surgical opportunities and techniques for cervical fixation exist. The choice of technique depends on the severity of the cervical spine involvement and the surgeon's preference. Surgery will be performed according to local standards and to the discretion of the surgeons, but a standardized minimal surgical technique is required. All approved cervical spine fixation systems are allowed in this trial. If AAS is present a C1-C2 screw fixation according to Magerl or Harms with or without wiring techniques, or a Hook C1-C2 fixation will be performed. When vertical translocation has occurred, the cranium will be fixated to the upper cervical spine with fixation to the C1-C2 screws. For each patient, the surgeons will register which technique they have used.

Conservative treatment: Conservative treatment consists of antirheumatoid drugs (i.e., NSAID, DMARD). The choice of drugs is to the discretion of the rheumatologist. Occurrence of progressive neurological deficit, progressive radiological abnormalities, and intolerable pain represent a failure of conservative management and are an indication for surgical fixation.

Contactpersonen

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Rheumatoid Arthritis patients, seropositive;
2. Age 18-70;
3. Ranawat I and II: no neurological impairment;
4. C1-C2 subluxation: AADI: 5-12 mm;
5. C1-C2 subluxation reducible or irreducible;
6. Informed consent.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Ranawat IIIA and IIIB: neurological impairment;
2. Severe comorbidity;
3. Previous craniocervical operations;
4. C1-C2 subluxation: AADI < 5 or 8 mm or > 12 mm or PADI < 10 mm;
5. MRI incompatibility.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Blindering:	Open / niet geblindeerd
Controle:	Geneesmiddel

Deelname

Nederland
Status: Werving nog niet gestart

(Verwachte) startdatum:	01-10-2005
Aantal proefpersonen:	250
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	31-10-2005
Soort:	Eerste indiening

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	NL434
NTR-old	NTR474
Ander register	: N/A
ISRCTN	ISRCTN65076841

Resultaten

Samenvatting resultaten
N/A