IBIS: 2-iminobiotin for ischemic stroke

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Acute Ischemic Stroke (AIS) is the second leading cause of death after coronary artery disease globally. In about 30% of cases, AIS is due to large vessel occlusion (LVO), which can be treated with intravascular therapy (IVT) with recombinant tissue...

Ethische beoordeling	Niet van toepassing
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON29036

Bron
Nationaal Trial Register

Verkorte titel
IBIS

Aandoening

Stroke, cerebral ischemia

Ondersteuning

Primaire sponsor: Haaglanden Medisch Centrum
Overige ondersteuning: Jacobusstichting Haaglanden Medisch Centrum, Neurophyxia BV

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The main study parameters used for evaluating the short-term safety and tolerability will be vital signs (heart frequency, blood pressure and oxygen saturation) before and during 24 hours after administration of the study drug and the need for clinical intervention. Furthermore, the occurrence of adverse and serious adverse events until 7 days will be

recorded on the neurology department or until discharge from the neurology department, whichever occurs earlier. For evaluation of the pharmacokinetics profile of 2-IB, 4 plasma samples will be analysed at different intervals (4 hours, 24 hours, 25 hours, and 28 hours after study medication) Pharmacokinetic parameters to be determined will include Cmax, AUC, Tmax, T1/2, clearance (Cl), and volume of distribution (Vd).

Toelichting onderzoek

Achtergrond van het onderzoek

This study will be a prospective, Phase 2, open label, single centre study with the primary objective to evaluate the safety and tolerability of 2-IB when administered to patients with AIS due to LVO, treated with IVT and/or EVT. The secondary objective will be to study tolerance, feasibility, pharmacokinetics and preliminary efficacy. Furthermore we will investigate the optimal timing of administration of 2-IB (as soon as possible after arrival at the emergency department or after reperfusion treatment).

Doel van het onderzoek

Acute Ischemic Stroke (AIS) is the second leading cause of death after coronary artery disease globally. In about 30% of cases, AIS is due to large vessel occlusion (LVO), which can be treated with intravascular therapy (IVT) with recombinant tissue plasminogen activator (rTPH) such as Alteplase® and endovascular therapy (EVT) using thrombectomy. Administration of neuroprotective drugs is a promising new therapy that could slow ischemic core growth and limit brain cell injury in AIS due to LVO after successful recanalization and reoxygenation with EVT. In preclinical experiments, 2-iminobiotin (2-IB) has been shown to reduce brain cell injury after hypoxia-ischemia. In clinical trials in neonates after birth asphyxia and adults after cardiac arrest, 2-IB has shown no safety issues. Before embarking on a large study with efficacy as a primary endpoint, safety, tolerability and pharmacokinetics of 2-IB treatment need to be established in patients with AIS due to LVO, treated with IVT and/or EVT . Especially, the safety of the combined administration of 2-IB with Alteplase® needs to be investigated

Onderzoeksopzet

Total follow up of 7 days (or until hospital discharge if this occurs earlier)

Onderzoeksproduct en/of interventie

Patients will be included in an alternating fashion between group 1 (treatment upon diagnosis) and group 2a/b (treatment after successful reperfusion). Patients allocated to treatment upon reperfusion will be treated in an alternating fashion with IV (n=5) or IA (n=5) administration of the initial bolus of study drug. Inclusion will continue until at least 5 patients treated with IVT are present in group 1 and 2, to test our hypothesis that no interaction exists

between 2IB with Alteplase.

Contactpersonen

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

• Adults (age > 18 years for males and age >49 years for females)
• A clinical diagnosis of AIS
• Disabling stroke defined as a baseline NIH stroke scale score ≥5
• Alberta Stroke Program Early CT score (ASPECTS) > 4 on CT (or MRI)
• Presence of an intracranial LVO of the anterior circulation (distal ICA, M1 or proximal M2 segment of the MCA) on CTA, MRA or
DSA
• Start of EVT (arterial access puncture) possible within the first 6 hours after stroke onset or last seen well
• EVT with declared first endovascular approach as either stent retriever, aspiration device or a combined approach
• Written informed consent (after deferred consent)
• Pre-stroke independent functional status in activities of daily living (mRS≤2)

Belangrijkste redenen om niet deel te kunnen nemen

(Exclusiecriteria)

• No informed consent
• Contraindication to EVT or EVT > 6 hours after symptom onset (or last seen well)
• Evidence of a large core of established infarction defined as ASPECTS 0-4.
• Evidence of absence/poor collateral circulation on CTA (Tan collateral score of 0 or 1)26.
• Known co-morbidity with a life expectancy of <6 months prior to acute ischemic stroke
• Women aged 49 or less or known pregnancy*
• Cognitive impairment (documented dementia) known prior to ischemic stroke
• Pre-stroke disability which interferes with the assessment of functional outcome at 90 days, i.e. mRS >2
• Intent to use any endovascular device other than a stent retriever or clot aspiration device or intra-arterial medications as the initial thrombectomy approach.
• History of life threatening allergy (more than rash) to contrast medium
• Evidence of acute hemorrhage on CT, MRI
· Significant mass effect with midline shift.
· Subjects with occlusions in multiple vascular territories (e.g., bilateral anterior circulation, or anterior/posterior circulation)
· Severe known renal impairment defined as requiring dialysis (hemo- or peritoneal) or if known a eGFR < 20 mL/min.

*As 2-IB has not been tested yet for embryonic toxicity and limited pre- and postnatal development studies have been performed, women who can be pregnant must not be included be in this study.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Anders
Toewijzing:	Niet-gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-08-2021

Aantal proefpersonen:	18
Type:	Verwachte startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Ethische beoordeling

Niet van toepassing

Soort:	Niet van toepassing

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 51194
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL9532
CCMO	NL77507.056.21
OMON	NL-OMON51194

Resultaten