Pamidronate for Pain in Sternocostoclavicular Hyperostosis: a double-blind randomized placebo-controlled trial

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

Samenvatting

ID

NL-OMON27475

Bron
Nationaal Trial Register

Verkorte titel
PAPS

Aandoening

Sternocostoclavicular Hyperostosis

Ondersteuning

Primaire sponsor: Leiden University Medical Center
Overige ondersteuning: ReumaNederland

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Change in score of maximal pain on BPI (NRS 0-10) from baseline to 6 months.

Toelichting onderzoek

Achtergrond van het onderzoek

Background: sternocostoclavicular hyperostosis (SCCH) is a rare inflammatory disorder of the axial skeleton, mainly affecting sternum, clavicles and upper ribs. Patients present with swelling and pain in the affected areas and impaired movement of the shoulder girdle. Disease burden is high, and impaired quality of life common as well as inability to keep working. Diagnosis is often delayed as awareness for SCCH is low. There is no approved therapy for SCCH. In our center, we have been effectively and safely treating patients with SCCH with intravenous bisphosphonates for over two decades, with an observed favourable outcome of reduction in pain, improvement in shoulder mobility, and prevention of disease progression in a majority of patients. However, there is a need to confirm these observations by means of RCT, using validated tools for evaluation of changes in pain, shoulder girdle function and quality of life in response to treatment.

Objectives: we aim to investigate in SCCH patients whether 3-monthly pamidronate decreases locally increased bone turnover (measured by Na18F-PET scans) and thereby decreases pain (primary endpoint), and leads to improvement in shoulder girdle function, quality of life, physical and work activity (secondary endpoints) in de active treatment arm compared to placebo.

Study design: double-blind placebo controlled 6 months intervention study followed by a 6 months open-label study.

Study population: Patients over 18 years old with an established diagnosis of SCCH on the basis of characteristic clinical and radiological features and persistent pain at the site of lesions with a maximum pain score of ≥6/10 as measured by the Brief Pain Inventory (BPI).

Intervention: Eligible patients will be randomized to receive two courses of pamidronate, administered intravenously at a dose of 30 mg daily on 3 consecutive days 3-monthly, or placebo. After these 6 months, the trial is continued in an ‘open label’ design for the following 6 months, with pamidronate being administered to all patients with a maximum pain score of 4/10 or higheras measured by BPI.

Main study parameters/endpoints: pain scores (measured by brief pain inventory (BPI)).

Doel van het onderzoek

We hyopthesize that in SCCH patients 3-monthly pamidronate decreases locally increased bone turnover (measured by Na18F-PET scans) and thereby decreases pain, and leads to improvement in shoulder girdle function, quality of life, physical and work activity compared to placebo.

Onderzoeksopzet

Baseline, 3 months, 6 months, 9 months, 12 months (total study period being 12 months)

Onderzoeksproduct en/of interventie

Eligible patients will be randomized to receive two courses of pamidronate, administered intravenously at a dose of 30 mg daily on 3 consecutive days 3-monthly, or placebo. After these 6 months, the trial is continued in an ‘open label’ design for the following 6 months, with pamidronate being administered to all patients with a maximum pain score of 4/10 or higher as measured by BPI.

Every 3 months patients will be requested to complete the following questionnaires: BPI to assess pain and interference of pain with daily life, Pain-DETECT to assess neuropathic pain, shoulder rating questionnaire and shoulder function assessment to assess shoulder complaints. Also requested to be completed is a questionnaire to assess work activity. IPAQ will be used to evaluate physical activity both during work and leisure time, sf-36 for general health, and CarerQol for partner burden. Patient Global Impression of Change will be used to evaluate changes in well-being. Patients will be asked to keep a pain and fatigue diary. Use of analgesics is to be recorded in these forms as well. For economic evaluation the iMCQ questionnaire and iPCQ questionnaire will be evaluated to measure healthcare use and productivity respectively.

Laboratory investigations at every visit include measurement of parameters of inflammation (CRP, leucocytes, BSE, IL-1, IL-6, TNFalpha, DKK1, sclerostin, RANKL), kidney function (creatinine, to check whether pamidronate dose is safe; in case of eGFR < 30 ml/min, pamidronate will not be administered, conform Farmacotherapeutisch Kompas), electrolytes (potassium, sodium). Bone markers will be measured after an overnight fast, as it represents bone remodelling activity (alkaline phosphatase and P1NP as markers for osteoblast activity, and beta crosslaps as marker for osteoclast activity).Vitamin D, PTH, calcium and albumin will be measured to check whether levels are within normal range, as needed before pamidronate infusion.

Na18 F-PET/CT will be performed (intravenous 18 F-sodium fluoride injection followed by scan) at
baseline, 6 months and end visit to monitor tracer uptake and radiologic appearance.

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- Adult patients with an established diagnosis of SCCH based on clinical and radiologic features and increased radioactive tracer uptake on 99mTc scan
- Reported maximum pain score of 6/10 or higher
- No treatment with bisphosphonates for the previous 6 months

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- Patients under 18 years of age
- Active pregnancy wish, pregnancy or nursing
- Generalized pain without SCCH related pain
- Bisphosphonate use 6 months before study entry
- Bisphosphonate allergy
- Estimated glomerular filtration rate < 30 ml/min
- Uncontrolled endocrine abnormalities
- Active cancer treatment
- Language barrier, severe co-morbidity, mental disability, poor mobility and other causes preventing attendance for control visits, In case of poor dental hygiene or inadequate dental care, patients will only be enrolled after oral maxillary surgeon consultation.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Dubbelblind
Controle:	Placebo

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	08-12-2020
Aantal proefpersonen:	90
Type:	Verwachte startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Ethische beoordeling

Positief advies

Datum:	01-02-2021
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 52471
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL9233
CCMO	NL68020.058.20
OMON	NL-OMON52471

Resultaten