STEPS study

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON20636

Source
Nationaal Trial Register

Brief title
STEPS study

Health condition

Sarcoidosis, sarcoidose, prednisone, prednison, treatment, behandeling, pulmonary function, longfunctie

Sponsors and support

Primary sponsor: ErasmusMC
Source(s) of monetary or material Support: Sponsor

Intervention

Outcome measures

Primary outcome

1. Repeated measurements of the FVC and prednisone dose used

Secondary outcome

1. Demographic data and clinical status (age, gender, ethnicity, smoking status, co-morbidities, extra thoracic manifestations, date and method of sarcoidosis diagnosis);

2. Patient reported pulmonary complaints objectified in dyspnoea (Medical Research Council (MRC) scale), quality of life (King's Sarcoidosis Questionnaire (KSQ), St. George Respiratory Questionaire (SGRQ)). When available, the long-term outcome of prednisone treatment will be assessed at 2, 3 and 5 years following treatment initiation via patient records described at routine follow-up visits at the outpatient clinicsalth (SF-36) and fatigue scores (Fatigue Assessment Scale (FAS));"

3. Repeated measurements of weight;

4. Extent of pulmonary disease (in-hospital pulmonary function data and radiology data);

5. Laboratory data (ACE, calcium, glucose, sIL2R, creatinine, urine analysis (calcium/creatinine/protein), CRP);

6. Exploratory immunological analysis of lymphocyte subsets.

Study description

Background summary

Sarcoidosis is a granulomatous disorder of unknown cause. Current therapy is immunosuppressive, not curative and often ineffective, as we do not thoroughly understand the underlying pathogenesis. Oral corticosteroids are the first line of therapy in pulmonary sarcoidosis patients with significant pulmonary symptoms and/or progressive disease as determined by radiology or lung function. In the latter case, treatment is primarily aimed at preventing organ damage, although previous studies did not conclusively demonstrate a beneficial effect in preventing disease progression or pulmonary fibrosis. Nevertheless, current treatment guidelines advocate relatively long and high initial treatment regimes, without clear evidence for the optimal dose and duration of treatment. Importantly, prolonged treatment with prednisone is known to induce considerable side-effects/co-morbidity.
Several expert-opinions suggest a lower initial dose and shorter initial phase, based on retrospective case series. However, there is considerable variety in the response to treatment between sarcoidosis individuals and immunological mechanisms underlying this phenomenon have not been elucidated yet. These data suggest that treatment of sarcoidosis patients should be individualized, pursuing the lowest prednisone dose for the shortest period possible. However, prospective data on the early response towards prednisone treatment and tapering is lacking in a well-characterized cohort of pulmonary sarcoidosis patients.
Against this background, we aim to describe the pulmonary response to corticosteroid

therapy and tapering in a cohort of newly treated pulmonary sarcoidosis patients, using a hand-held spirometer. With results of this study, in the future, we hope to individualize the treatment and tapering strategy for sarcoidosis patients. This could lead to prednisone dose sparing, reduction in co-morbidity and an increased quality of life of sarcoidosis patients. This treatment strategy has already been performed successfully in other chronic pulmonary diseases requiring prednisone treatment, like asthma.

Study objective

Sarcoidosis is a granulomatous disorder of unknown cause. Current therapy is immunosuppressive, not curative and often ineffective, as we do not thoroughly understand the underlying pathogenesis. Oral corticosteroids are the first line of therapy in pulmonary sarcoidosis patients with significant pulmonary symptoms and/or progressive disease as determined by radiology or lung function. In the latter case, treatment is primarily aimed at preventing organ damage, although previous studies did not conclusively demonstrate a beneficial effect in preventing disease progression or pulmonary fibrosis. Nevertheless, current treatment guidelines advocate relatively long and high initial treatment regimes, without clear evidence for the optimal dose and duration of treatment. Importantly, prolonged treatment with prednisone is known to induce considerable side-effects/co-morbidity.

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Against this background, we aim to describe the pulmonary response to corticosteroid therapy and tapering in a cohort of newly treated pulmonary sarcoidosis patients, using a hand-held spirometer. With results of this study, in the future, we hope to individualize the treatment and tapering strategy for sarcoidosis patients. This could lead to prednisone dose sparing, reduction in co-morbidity and an increased quality of life of sarcoidosis patients. This treatment strategy has already been performed successfully in other chronic pulmonary diseases requiring prednisone treatment, like asthma.

Study design

Baseline visit, months 1,3,6,9,12

Intervention

Patients participating in this study will be treated according to current guidelines. As such, diagnostic procedures or treatment will not be postponed during participation. Standard procedures will be executed during regular visits at the outpatient clinic. In course of the research:

1. Daily home monitoring of the pulmonary function (PF) will be performed with a hand-held spirometer (MicroDiary, CareFusion) during the first three months of treatment;

2. The patient is asked to keep record of his/her symptomatic response to therapy by filling out a weekly dyspnoea score (MRC scale) and a fatigue score (FAS score) during the first three months of treatment at home;

3. During the regular visits at the outpatient clinic, patient reported response to therapy will be objectified by two standardized questionnaires (SGRQ, SF-36, KSQ), in-hospital pulmonary function tests at the department of pulmonology, a chest X-ray, thorax-HRCT (only if physician’s choice), weight and laboratory data will be recorded;

4. The patient will be asked to donate an additional 60 ml peripheral blood for immunological analysis at the baseline visit, month 1,3 and 12 (i.e. amount of macrophages, NK-cells, dendritic cells, T-cells, B-cells and cytokines; apoptotic susceptibility towards FasL, IL-2 deprivation and prednisone; expression of activation, differentiation and apoptotic markers; immunosuppressive function of lymphocyte subsets and HLA-type will be examined). Blood will be collected during routine venapunction.

Contacts

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Eligibility criteria

Inclusion criteria

-Patients with stage II/III sarcoidosis (based on a chest X-ray or equivalent on a CT-scan) (established using the criteria of the World Association of Sarcoidosis and Other Granulomatous Disorders (WASOG));

- A forced vital capacity (FVC) < 80% of predicted AND/OR an absolute decline of > 10% predicted PVC within 12 months

- A pulmonary indication for prednisolone treatment (determined by the treating physician and conform current clinical guidelines);

- Written informed consent;

- Age > 18.

Exclusion criteria

- Previous immunosuppressive treatment for sarcoidosis (e.g. prednisone, methotrexate (MTX), Infliximab);

- Use of systemic immunosuppressive therapy within the previous 3 months for another disease then sarcoidosis;

- Contra-indication for steroids;

- Other conditions which could influence pulmonary function, such as:
o Concurrent chronico bstructive pulmonary disorder(COPD);

o Concurrent active asthma (according to GINA guidelines);

o Fibrotic lung disease;

o Pregnancy;

o Morbideobesitas(BMI>30);

- Pulmonary malignancies.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Factorial
Allocation:	Non-randomized controlled trial

Control: N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	19-12-2013
Enrollment:	50
Type:	Anticipated

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion

Date:	19-12-2013
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 44859
Bron: ToetsingOnline
Titel:

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL4169
NTR-old	NTR4328
CCMO	NL44805.078.13
ISRCTN	ISRCTN wordt niet meer aangevraagd.
OMON	NL-OMON44859

Study results

Summary results
N/a