'MUCosal Origin of Serum Autoantibodies in rheumatoid arthritis'

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Ethical review	Approved WMO
Status	Recruiting
Health condition type	Autoimmune disorders
Study type	Observational invasive

Summary

ID

NL-OMON48311

Source
ToetsingOnline

Brief title
MUCOSA

Condition

- Autoimmune disorders

Synonym
RA, Rheumatoid artritis

Research involving
Human

Sponsors and support

Primary sponsor: Leids Universitair Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Autoantibodies, Mucosa, Post-translational modifications, Rheumatoid arthritis

Outcome measures

Primary outcome

The detection of several RA associated antibodies and their distinct antibody features in feces, saliva and sputum of patients. This will be compared to the autoantibody profile in serum. Among the distinct antibody features that will be explored are isotype usage, fine-specificity, glycosylation of Fc- and Fab-region, avidity and affinity.

Secondary outcome

The presence and characteristics of other biomarkers reflecting the mucosal immune response in feces, saliva and sputum of patients with RA and healthy controls. These biomarkers include: the presence of (anti-)inflammatory cytokines and chemokines and the structure and origin of antigens. Furthermore, collaboration with other centers may allow the investigation of the microbiome composition in the future.

Study description

Background summary

A subset of rheumatoid arthritis (RA) patients harbour antibodies against several post-translational modifications and are frequently positive for rheumatoid factor. The exact pathophysiology of the development of the autoantibody response and of RA remains unknown. Investigations into genetic and environmental risk factors and systemic immune dysregulation have led to the hypothesis that the mucosal surfaces might be involved in the pathogenesis of seropositive RA. It is proposed that tolerance against post-translational modifications is broken at the mucosa, inducing an cascade leading to a

systemic inflammatory response and clinical disease.

Study objective

We aim to perform an in-depth investigation into the role of the mucosal immune response in the pathogenesis of rheumatoid arthritis. Our objectives are to study the presence of RA-specific autoantibodies and several other biomarkers (cytokines, antigens and microbiome) in mucosal fluids of RA-patients.

Study design

At the rheumatology department of the LUMC a cross-sectional study will be performed in which peripheral blood, feces, saliva and sputum (optional) from patients with rheumatoid arthritis and healthy controls are collected and several clinical (patient) characteristics will be recorded.

Study burden and risks

Participant will need to self-collect feces. Saliva is collected by the passive drooling method. Blood sampling will be performed at the central blood draw facility of the LUMC and a questionnaire will be used to collect clinical parameters. If participants give additional consent for sputum donation, sputum induction will take place using a disposable device, the LungFlute®, through which they have to breath out several times. The risks of this study are limited to the collection of peripheral venous blood and sputum. Any symptoms caused by blood sampling or sputum induction are usually mild and symptoms will recover fully and spontaneously. The participants do not benefit from this study, but their participation could lead to improved future therapeutic care for RA patients.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

- Age 18 years or older
- Ability to understand the patient information form and ability to provide written informed consent
- Written informed consent

For patients:
- a definite diagnosis of rheumatoid arthritis based on the ACR/EULAR 2010 criteria for RA

For healthy controls:
- No previous prolonged and/or current symptoms of inflammatory arthritis

Exclusion criteria

- Individuals who fail to meet the inclusion criteria
- Individuals for whom relevant safety issues apply (for example, dyspnoea or severe anaemia) that preclude the provision of sputum, saliva, peripheral blood or feces
- Individuals who are currently suffering from upper airway infections, influenza or other contagious (lung)diseases
- Dental treatment within the previous month
- The presence of oral ulcers
- Individuals with known inflammatory bowel disease

Study design

Design

Study type:	Observational invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	22-07-2020
Enrollment:	260
Type:	Actual

Ethics review

Approved WMO

Date:	13-01-2020
Application type:	First submission
Review commission:	METC Leiden-Den Haag-Delft (Leiden) metc-ldd@lumc.nl

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

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

ID: 23860
Source: Nationaal Trial Register
Title:

In other registers

Register	ID
CCMO	NL71319.058.19