B cell signalling differences in acute cellular rejection after lung transplantation (HAMLET)

Published: 09-11-2020
Last updated: 09-04-2024

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Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Observational invasive

Summary

ID

NL-OMON49616

Source
ToetsingOnline

Brief title
Hamlet

Condition

- Other condition

Synonym
host-versus-graft, transplant rejection

Health condition

afstoting long transplantaat

Research involving

Human

Sponsors and support

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

Intervention

Keyword: B cells, Lung transplant rejection, signaling, T cells

Outcome measures

Primary outcome

- BTK protein expression in peripheral B cells. (flow cytometry).

- BCR signalling, measured by increased phosphorylation of pSYK in in vitro

stimulated B cells compared to unstimulated B cells. (culture and phosphoflow)

Secondary outcome

- To assess the T cell phenotype and activation

- To assess the NK cell phenotype and activation

- To measure the cytokine production by T cells

- To determine Nuclear Factor kappa-B (NFkB) signaling in primary T cell

subsets by means of flow cytometry.

- Correlation of the findings in previously obtained peripheral lung

biopsies; in order to

clinico-pathologically correlate this with the findings of the immune cell

subsets

by means of immunohistochemistry (IHC).

Study description

Background summary

After lung transplantation there are recipients who encounter episodes of acute cellular rejection (ACR) and there are recipients who do not encounter these episodes at all. We hypothesize that specific differences in immune constitution and their response can explain this difference. By detection and confirmation of these differences, allograft reactivity could be predicted and subsequent treatment can be altered to prevent recipients from developing one or more episodes of allograft reactivity.

Study objective

The primary objective is to investigate if there are differences in BTK and B cell receptor signaling (measure for B cell activation) in patients with and without repetitive episodes of ACR. This endpoint will be constituted from peripheral blood withdrawn from patients after lung transplantation.

Study design

case-control study

Study burden and risks

Peripheral blood will be withdrawn once, after informed consent, by means of vena puncture during routine outpatient visit. Vena puncture can cause mild discomfort; the puncture could be experienced as being painful, and a hematoma could result from this procedure. There are no further risks associated with participation. The subject will not have direct benefit from the findings in this study, but it could be of great value for optimizing post-lung transplantation care and prevention and management of allograft reactivity.

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

In order to be eligible to participate in this study, a subject must meet all of the following criteria:
1. Patients (18-70 years) who underwent uni- or bilateral lung transplantation.
AND
2. Written informed consent.
AND
3. One or more episodes of acute cellular rejection within the first two years after lung transplantation
OR
4. No episode of acute cellular rejection within the first two years after lung transplantation.

Exclusion criteria

1. Non-compliance to treatment
2. Active or treated malignancy (solid or hematological malignancies).
3. Who underwent a lung retransplantation.
4. Repetitive episodes of infection in advance of an episode of acute cellular rejection

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:	Recruitment stopped
Start date (anticipated):	06-01-2021
Enrollment:	30
Type:	Actual

Ethics review

Approved WMO

Date:	09-11-2020
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

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

No registrations found.

In other registers

Register	ID
CCMO	NL73594.078.20