Influence of JAK inhibitors on the disease-associated network of intestinal immune cells in ulcerative colitis

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Observing changes in immune cell composition in locally (intestinal biopsies) and systemically (Peripheral Blood Mononuclear Cells (PBMCs)) upon JAK inhibitor treatment of UC patients.

Ethical review	Approved WMO
Status	Pending
Health condition type	Gastrointestinal inflammatory conditions
Study type	Observational invasive

Summary

ID

NL-OMON51787

Source
ToetsingOnline

Brief title
JAK inhibition in ulcerative colitis

Condition

- Gastrointestinal inflammatory conditions
- Autoimmune disorders

Synonym
Inflammatory Bowel Diseases; Ulcerative Colitis

Research involving
Human

Sponsors and support

Primary sponsor: Leids Universitair Medisch Centrum
Source(s) of monetary or material Support: Galapagos,Leids Universitair Medisch

Centrum,Pharmacie

Intervention

Keyword: Inflammatory bowel disease, JAK inhibitor, ulcerative colitis

Outcome measures

Primary outcome

Observing changes in molecular and cellular patterns in the biopsies and blood upon JAK inhibition using a multi-omics approach.

Secondary outcome

1. Which (pre-existing or treatment-related) molecular and cellular patterns correlate with response to treatment or lack thereof?

2. Are there differences between systemic (PMBCs) or local (biopsy) effects upon JAK inhibition?

3. What are the long term effects of JAK inhibition on the immunological environment (week 52)

Study description

Background summary

The treatment for Ulcerative Colitis (UC) aims to achieve and maintain remission and is usually lifelong and expensive. Current available medications are unable to break the cycle of chronic inflammation, and still a significant proportion of patients will fail to respond (primary non-response) or lose response over time (secondary non-response). There is now growing evidence that there is substantial interpatient variation in the composition of the inflammation associated network of immune cells. A deeper knowledge of the patient*s alterations in the mucosal immune response would help identify key drivers of inflammation and select the appropriate therapy. By analyzing the changes in the composition of immune cells induced by Janus Kinase (JAK) inhibition, we aim to obtain a better insight into the mechanistic effects of JAK inhibition and the downstream effects. These mechanistic insights are

needed to identifying potential responders and non-responders in the future.

Study objective

Observing changes in immune cell composition in locally (intestinal biopsies) and systemically (Peripheral Blood Mononuclear Cells (PBMCs)) upon JAK inhibitor treatment of UC patients.

Study design

Patient with active ulcerative colitis that are eligible for medication change will and choose for a JAK inhibitor will be asked to participate. The choice for specific medication is at the gastroenterologists and patients discretion. The follow-up will be according to standard clinical practice. At all endoscopy timepoints we will acquire extra biopsies to perform multi-omics analyses (the multi-omics approach is explained in section 1, the introduction). We will obtain PMBCs at the standard care blood control time points. The PBMCs will also be used for multi-omics analyses.

Study burden and risks

In adults there is a negligible risk to taking biopsies. Taking biopsies during endoscopy can cause intra-intestinal or intramural haemorrhage, or, although very rarely, a perforation. The risk is estimated to be < 1:10000. There is no additional risk in sampling an extra 30 ml of blood.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)

Inclusion criteria

ulcerative colitis
indication for JAK inhibitor

Exclusion criteria

Age

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:	Pending
Start date (anticipated):	01-12-2022

Enrollment:	70
Type:	Anticipated

Ethics review

Approved WMO Date:	19-12-2022
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

No registrations found.

In other registers

Register	ID
CCMO	NL81808.058.22