Progression Biobank of Achalasia and autoimmune gastritis

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1. To validate the existing guidelines with prospective and retrospective data from this cohort by performing an upper endoscopy at baseline, one year after inclusion and subsequently every three years thereafter in order to assess the risk of…

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

Summary

ID

NL-OMON49853

Source
ToetsingOnline

Brief title
PROBAAI

Condition

- Gastrointestinal inflammatory conditions

Synonym
autoimmune metaplastic atrophic gastritis, gastrointestinal tumors

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: Achalasia, Autoimmune gastritis, Gastric cancer, Surveillance

Outcome measures

Primary outcome

1. Risk of malignant progression in AIG and achalasia.

2. Infiltrating immune cells in biopsy from patients with AIG and achalasia.

3. Autoantibodies in the serum from AIG and achalasia patients.

4. The prevalence of HSV-1 and -2, human papillomavirus (HPV), human cytomegalovirus (HCMV), Epstein-Barr virus (EBV) and H. pylori infection in AIG and achalasia patients.

5. HLA genotyping data in AIG and achalasia patients.

Secondary outcome

1. Investigate whether the diagnosis of achalasia can be performed by immunofluorescence imaging of serum on rat tissues (as is now routinely performed for AIG).

2. Attempt to create an organoid biobank from freshly collected gastric and esophagus biopsies to set up a preclinical model to identify the specific autoantibody in achalasia and AIG.

3. To evaluate the microbiota composition in the esophagus and gastric mucosa.

Study description

Background summary

A lack of knowledge of the pathogenesis of autoimmune digestive disorders leads to a delay in disease diagnosis and treatment, especially for autoimmune

gastritis (AIG) and achalasia. Therefore, we want to set up a prospective cohort to further investigate the natural course of AIG and achalasia, and the molecular mechanisms involved in these two diseases. In addition, by prospectively following these patients, we aim to enhance our knowledge regarding the origin of these diseases and develop insights to guide clinical practices (such as whether surveillance of these patients may be useful). Two such cohorts are currently already under investigation in our centre. Patients with Barrett*s esophagus (Probar study) and gastric intestinal metaplasia (Proregal cohort), two premalignant lesions associated with increased risk to cancer progression, are already being prospectively followed and the associated databases have already proven their worth. With the current cohort, we aim to extend our investigation to autoimmune disorders of the esophagus and stomach, which may predispose for cancer.

Study objective

1. To validate the existing guidelines with prospective and retrospective data from this cohort by performing an upper endoscopy at baseline, one year after inclusion and subsequently every three years thereafter in order to assess the risk of progression to cancer in this cohort
2. To set up a biobank to further study the pathogenesis of autoimmune digestive disorders, including:
2a. To evaluate the overlap of achalasia and autoimmune gastritis with other autoimmune diseases (i.e. autoimmune thyroid disease, type 1 diabetes), and investigate the family history of autoimmune diseases
2b. To identify potential triggers of the autoinflammation by investigating the patients* medical history, particularly the history of herpes simplex virus-1 (HSV), varicella-zoster virus and H. pylori infection in achalasia and autoimmune gastritis patients and the composition of microbiota in the esophagus and gastric mucosa.
2c. To study the underlying mechanism of the malignant progression by analysis the HLA genotyping, proportions of infiltrating immunological cells in the esophagus and gastric mucosa.

Study design

This research is a multi-center prospective study on autoimmune upper GI diseases, i.e. AIG and achalasia. Included patients will be asked to fill in a questionnaire to collect information about family history and history of other autoimmune diseases. At baseline, we will collect biopsies, blood, and serum samples for biobanking from patients for subsequent DNA extraction, immunophenotyping, and autoantibody testing, amongst others. Serum and biopsies will additionally be collected during each follow-up visit. Moreover, we will identify patients with AIG and achalasia through PALGA and DBC search and collect pathology data (e.g. FFPE block numbers for immunophenotyping) and other laboratory results from EPD and HIX separately.

Study burden and risks

Participants will be asked to donate blood (<30ml), and biopsies are collected during endoscopy follow-up. Therefore, the burden and risk of this study are negligible. This study is expected to benefit future patients with these diseases. Additionally, closer surveillance may result in detection of early cancerous lesion, allowing better treatment of 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

Diagnosis of autoimmune gastritis or achalasia

Exclusion criteria

History of surgery in the upper gastrointestinal tract, including the stomach or esophagus.
Subjects with portal hypertension.

Study design

Design

Study type: Observational invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	31-12-2020
Enrollment:	300
Type:	Anticipated

Ethics review

Approved WMO

Date:	30-04-2021
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	NL74258.078.20