Predisposing genetic risk factors for Barrett*s Esophagus

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Primary Objective: To identify variants in the humane genome that are associated with BE risk. Secondary Objective(s): We will collect information on BE length, complication of BE (dysplasia, ulcer, stricture or EAC), presence of esophagitis and...

Ethical review	Approved WMO
Status	Pending
Health condition type	Benign neoplasms gastrointestinal
Study type	Observational invasive

Summary

ID

NL-OMON39802

Source
ToetsingOnline

Brief title
GWAS Barrett*s disease

Condition

- Benign neoplasms gastrointestinal

Synonym
Barrett□s esophagus, cell abnormality in the lower esophagus

Research involving
Human

Sponsors and support

Primary sponsor: Erasmus MC, Universitair Medisch Centrum Rotterdam
Source(s) of monetary or material Support: subsidie van Terrgooi Wetenschapsfonds

Intervention

Keyword: Barrett□s esophagus, genetic riskfactors, GWAS

Outcome measures

Primary outcome

Primary endpoint: regions on human genome that are associated with BE.

Secondary outcome

Secondary endpoints are: BE length, complication of BE (dysplasia, ulcer,

stricture or EAC), presence of esophagitis and hiatal hernia, patients* BMI,

medication and cardiac history

Study description

Background summary

Barrett*s esophagus (BE) is the second most common premalignant lesion in the Western world after large bowel polyps. BE affects over 2% of the adult population and, unlike bowel polyps, lacks any proven effective therapy.
In the majority of cases, BE is associated with chronic gastro-esophageal reflux disease (GERD), including esophagitis. In addition, there are structural changes, mainly hiatus hernia, in the lower esophagus in over 80% of BE patients. This allows both acid and bile to remain immediately adjacent to the esophageal epithelium. The annual risk of esophageal adenocarcinoma (EAC) in BE is approximately 0.5-1% per year. The incidence of EAC has been rising by 3% each year for the last 30 years and is now the fifth commonest cancer in the UK. Despite modern multimodality therapy, the prognosis of EAC remains poor, with a 9-15% 5-year survival.
The etiology of BE is not well characterised. Environmental factors, such as obesity are associated with GERD, BE and EAC. There is also evidence of causal genetic factors; the relative risks are increased 2-4 fold for GERD, BE and EAC when one first-degree relative is affected. However, extensive candidate gene searches have so far failed to identify genetic variants that are associated with BE risk.
Using cohorts from UK and Dutch populations (in collaboration with Prof. Jankowski) we want to identify variants associated with BE in this genome-wide association study.

Study objective

Primary Objective: To identify variants in the humane genome that are associated with BE risk.
Secondary Objective(s): We will collect information on BE length, complication of BE (dysplasia, ulcer, stricture or EAC), presence of esophagitis and hiatal hernia from medical records. Further, information on patients* BMI, medication and cardiac history will be collected.

Study design

This will be a genome-wide association study on BE cases and controls. Patients with known BE will be collected from the cohort of BE patients in the Tergooi ziekenhuizen and Kennemer Gasthuis.
Patients will be contacted with a letter, including patient information folder and an informed consent form. Patients not reacting within 14 days will receive a reminder letter.
Patients who are willing to participate in the study and have given written informed consent will be asked for a single visit at their hospital (Tergooi ziekenhuizen, Kennemer Gasthuis) for a single withdrawal of 5ml of EDTA blood. No further visits to the hospital will be necessary.

Study burden and risks

The risks of drawing blood from a vein include discomfort at the site of puncture; possible bruising and swelling around the puncture site; rarely an infection; and, uncommonly, faintness from the procedure.

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

Patients with Barrett*s disease

Exclusion criteria

Patients without histological confirmation of BE

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):	15-11-2012
Enrollment:	600
Type:	Anticipated

Ethics review

Approved WMO Date:	22-05-2013
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	NL42494.078.12