Screening for Familial Gastric Cancer in first degree relatives

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Primary, to determine whether staining of the gastric mucosa increases the number of detected (pre)malignant foci of diffuse type gastric cancer, in individuals from families with FDGC as well as dysplastic, adenomatous and early intestinal cancers...

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Gastrointestinal tract disorders congenital
Study type	Observational invasive

Summary

ID

NL-OMON37219

Source
ToetsingOnline

Brief title
FamGaCan

Condition

- Gastrointestinal tract disorders congenital
- Gastrointestinal neoplasms malignant and unspecified

Synonym
Familial Gastric Cancer

Research involving
Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Sint Radboud
Source(s) of monetary or material Support: Dit onderzoek betreft grotendeels aanpassing van normale zorg; wordt niet extra gefinancierd

Intervention

Keyword: Familial, Gastric Cancer, Screening

Outcome measures

Primary outcome

The primary study outcome of this study is to determine if spraying of the gastric mucosa with acetic acid and Indigo carmine will increase the detection rate of these (pre)malignant lesions.

Secondary outcome

Secundary study paramers of this study are:

A] To determine if standardized sampling, colouring and examination of the histological specimens will contribute to the detection of (pre-)malignant FDGC.

B] To determine the optimal interval for endoscopic screening.

C] To determine the contribution as well as association with clinical, life-style and dietary habits to the development of FGC.

D] And finally, to determine the psychosocial impact of screening in individuals in this population.

Study description

Background summary

Familial gastric cancer (FGC) concerns about 10% of all gastric cancers. It has an impressive impact on both emotional and physical wellbeing of first degree relatives of patients with (early) onset of gastric cancer. FGC can in 1-3% be attributed to one single hereditary syndrome, the hereditary diffuse gastric cancer (HDGC). HDGC is associated with a CDH1 mutation in about 40 % of the cases. In case there is no CDH1 mutation, referred to as familiar diffuse

gastric cancer (FDGC), it remains uncertain how to guide and/or screen family members. The same applies for the rare familial intestinal type gastric cancer (FIGC). In this study we want to determine the value of endoscopic screening in members of families with FGC, both FDGC and FIGC. Also, we will analyze the associations of life style factors, including dietary habits with the development of FDGC, to be able to built preventive strategies. Finally, we want to assess the psychological impact of our screening protocol.

Study objective

Primary, to determine whether staining of the gastric mucosa increases the number of detected (pre)malignant foci of diffuse type gastric cancer, in individuals from families with FDGC as well as dysplastic, adenomatous and early intestinal cancers in individuals from families with FIGC. Secondary: A To determine the optimal pathological work-up the detection rate of (pre-)malignancy. B To determine clinical and life style factors that are associated with the two types of FGC. C To determine the psychosocial impact of the screening protocol in this population. D To develop a strategy for screening individuals from FGC families and creative advise for preventive measures.

Study design

The setup of this stydy is a randomized controlled trial included in a prospective cohort analysis. During this study the effect of staining of the gastric mucosa during endoscopy on the number of detected (pre)malignant foci will be determined. Therefore, during a follow-up period of 5 years, each individual has a gastroduodenoscopy at baseline, year 1, 3 and 5. During each endoscopy, 6 biopsies will be taken from 5 predetermined regions for histological examination. Additionally, 2 biopsies will be frozen immediately in liquid nitrogen and stored at -80°C. Also, biopsies will be taken from all visual lesions. During the baseline endoscopy half of the individuals will be randomized for chromoendoscopy, and half for a normal white light HD endoscopy. During the second endoscopy all individuals will have a chromoendoscopy. Hereafter, an interval analysis will be performed, to determine if chromoendoscopy will be continued or not. Additionally, at baseline, from each individual blood will be withdrawn for determination of possible risk factors for the development of a diffuse and intestinal gastric cancer, DNA- analysis (if not performed in advance), and possible future mutation analysis. Also, questionnaires concerning worry and psycho/anxiety and psychological impact will be taken.

Study burden and risks

In general, this study aims to restrict the physical and mental burdens for the subject as much as possible. The physical risks that are introduced by this

study to the participating individuals are the risks associated with the duodenoscopies and sedation. The mortality risk associated with endoscopy is 1: 20.000. This mortality is associated with increased age of the patient (>70), type of procedure (interventions such as ERCP) and co-morbidity. In our relatively young patient populations, these risk factors are not expected. As such, this risk is estimated to be very low or even negliglible. The risk derived from the venous puncture that has to be performed for blood withdrawal will be minimal. We take the samples of whole blood almost always in the context of a routine clinical blood withdrawal to avoid extra venous punctures. So in this scenario the subjects may undergo one venous puncture on clinical visit. From all selected subjects maximal 40 cc is collected additionally, which normally should have no influence on the health status of the subject. Both acetic acid, as well as Indigo carmine are innocent colouring adds which are used in food industry. From both chemical substances no harm is expected for the participants of this study.
Additional to the standard treatment, all individuals will receive a PPI once daily for 14 days after each endoscopy to minimize any possible discomfort following the endoscopy. Side effects of PPI are rare and mild (nausea, dizziness, abdominal discomfort, diarrhoea), and the benefit for the patient in the prevention of discomfort is considerable. To prevent differences in discomfort by bias as a result of differences in PPI, we agreed with our pharmacy to organize that all patients will receive the same PPI for the period of the study.
The mental burden for the included subjects in general is predicted to be low, but is part of this research project. On one hand an individual may draw considerable benefit in survival if an underlying pre(malignancy) is detected. On the other hand, for each individual screening may have a different impact, even if no (pre)malignancy is detected.
To establish a reasonable basis for the cooperation of the individual patients, a common consent agreement will be signed by the patient prior to participation.

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

1] Adult from age of 18 years, female and male relatives
2] Fully legal competent (to simplify the common consent agreement for blood withdrawal, and serial endoscopies.)
3] Individuals that signed the common consent agreement
4] First degree relative of an individual with diffuse gastric cancer from a Familial Gastric Cancer-family:
o OR: 2 or more individuals with diffuse gastric carcinoma, at least one < 50 yrs
o OR: 3 or more individuals with (diffuse/intestinal/other type) gastric carcinoma, any age
o OR 1 individual with diffuse gastric carcinoma < 40 yrs

Exclusion criteria

- immature individuals
- actual gastric ulcer or gastric bleeding
- previous diagnosis of cancer
- individuals with co-morbidity which might increase the sedation and/or endoscopy risk:
COPD Gold III/IV
Cardiac failure
Increased bleeding tendency or use of medication which increases
bleeding tendency (and cannot be stopped temporarily)

Study design

Design

Study type:	Observational invasive
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	05-11-2012
Enrollment:	100
Type:	Actual

Ethics review

Approved WMO

Date:	05-09-2012
Application type:	First submission
Review commission:	CMO regio Arnhem-Nijmegen (Nijmegen)

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	NL40837.091.12