Expression of adhesion and tight junction molecules in the liver after surgery

Published: 13-01-2012 Last updated: 27-04-2024

To determine whether surgery induces changes in the liver vasculature of patients with colorectal cancer.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Malignant and unspecified neoplasms gastrointestinal NEC
Study type	Observational invasive

Summary

ID

NL-OMON35971

Source ToetsingOnline

Brief title Surgery induced changes in the liver

Condition

- Malignant and unspecified neoplasms gastrointestinal NEC
- Gastrointestinal neoplasms malignant and unspecified
- Gastrointestinal therapeutic procedures

Synonym Liver metastases

Research involving Human

Sponsors and support

Primary sponsor: Vrije Universiteit Medisch Centrum Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Adhesion molecules, Liver metastases, Surgery, Tight junction molecules

Outcome measures

Primary outcome

Expression of tight junction and adhesion molecules, number of inflammatory

cells, presence of von Willebrand factor, blood vessel diameter

Secondary outcome

not applicable

Study description

Background summary

Metastases in CRC patients originate from tumor cells that have disseminated from the primary tumor, and either spread via the venous circulation, the lymphatics or directly into the peritoneal cavity. Under physiological circumstances, the process of metastases formation is highly inefficient, as disseminated tumor cells have a limited life span and are rapidly eliminated by the immune system. However, we previously demonstrated in rats that surgery induces changes in the liver, which enable adhesion of circulating tumor cells. We therefore hypothesize that surgery creates permissive circumstances for tumor cells to adhere in the liver and thereby increases chances of metastatic development.

The goal of the current study is to translate our findings that we obtained in animal studies to the clinical setting.

Study objective

To determine whether surgery induces changes in the liver vasculature of patients with colorectal cancer.

Study design

Prospective, observational pilot study.

Study burden and risks

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At the beginning and end of the operation biopsies will be taken from the liver segment that is resected. As such, the burden associated with participation consists of sampling 2 liver biopsies in a part of the liver, which is going to be removed. No extra liver material is sampled. Because sampling is performed during surgery, patients will not experience additional discomfort. Their therapy will neither be delayed nor altered and no extra complications are expected. Taking liver biopsies during either open or laparoscopic abdominal procedures is a minimal procedure. The additional risk of preoperative or postoperative bleeding of the puncture sites is minimal, especially considering that the biopsies are taken in the liver segment that is resected.

Contacts

Public

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years) Elderly (65 years and older)

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Inclusion criteria

Resection of colorectal liver metastases.

Exclusion criteria

Increased risk for bleeding

Study design

Design

Study type: Observational invasive		
Masking:	Open (masking not used)	
Control:	Uncontrolled	
Primary purpose:	Other	

Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	05-06-2012
Enrollment:	5
Type:	Actual

Ethics review

Approved WMO	
Date:	13-01-2012
Application type:	First submission
Review commission:	METC Amsterdam UMC

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 CCMO **ID** NL35463.029.11