Safety and feasibility of wide-area trans-epithelial sampling for detecting residual disease after neoadjuvant chemoradiotherapy for esophageal cancer

Published: 25-02-2021
Last updated: 08-04-2024

The objective of this study is to assess the safety and feasibility of WATS for esophageal sampling after nCRT in patient with esophageal cancer.

Ethical review	Approved WMO
Status	Will not start
Health condition type	Malignant and unspecified neoplasms gastrointestinal NEC
Study type	Interventional

Summary

ID

NL-OMON49705

Source
ToetsingOnline

Brief title
SANO-WATS-1

Condition

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

Synonym
carcinoma of the oesophagus, oesophageal cancer

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,CDxDiagnostics

Intervention

Keyword: active surveillance, chemoradiotherapy, esophageal cancer, wide-area transepithelial sampling

Outcome measures

Primary outcome

The primary endpoint is the type, number and severity of complications during

the first 30 days after WATS has been performed.

Secondary outcome

Secondary endpoints are:

- the histopathological quality of WATS samples;

- number and severity of technical malfunctions of the WATS instruments;

- duration of performing the WATS procedure;

- the correlation between the histopathological result of WATS and bite-on-bite

biopsies.

Study description

Background summary

In the Netherlands, more than 2500 people develop esophageal cancer every year. Chemotherapy and radiation followed by surgery is the standard treatment for patients without metastases. In some of the patients, however, the treatment with chemotherapy and radiation is so effective that the cancer is no longer detectable in the tissue that is removed during the operation. Surgery may not be necessary in these patients. The Dutch SANO study is testing whether an operation after pre-treatment with chemotherapy and radiation can be postponed in certain cases or perhaps even completely omitted, without compromising the

chance of cure.

After pre-treatment with chemotherapy and radiation, an endoscopy with biopsies is now used to assess whether there is still residual tumor in the esophagus, and whether or not surgery is necessary. If the residual tumor in the esophagus is small and is not visible to the naked eye, then it may be that these biopsies erroneously missed the residual tumor. For example, there is a risk that the result of this test will be incorrect and that an operation will be incorrectly postponed, while there is still a (small) residual tumor in the esophagus.

The WATS brush may reduce this risk of a false result. WATS is an acronym for: Wide-Area Transepithelial Sampling. By using a brush, tissue can be taken from a larger area (Wide-Area) of the esophagus. In addition, the brush is designed to also sample tissue in a deeper layer of the esophageal wall (Transepithelial), which may also detect a small tumor residue that is not located in the most superficial layer of the esophagus.

Study objective

The objective of this study is to assess the safety and feasibility of WATS for esophageal sampling after nCRT in patient with esophageal cancer.

Study design

Interventional prospective phase I pilot study.

Intervention

Two WATS procedures will be performed in addition to the established bite-on-bite biopsies in patients who are undergoing an EGD in the context of a clinical response evaluation after nCRT (according to the SANO protocol). First, ten patients without histological proof of resid-ual disease at the first and second clinical response evaluations (CRE-1 and CRE-2, resp.) will undergo WATS at the third clinical response evaluation (CRE-3) which is performed 24-26 weeks after completion of nCRT. At this time, the majority of patients does not have post-chemoradiotherapy ulceration or erosions any more, decreasing the risk of complications. If WATS can be safely performed at CRE-3, another 10 patients without histological proof of residual disease during CRE-1 will undergo WATS during CRE-2 which is performed 12-14 weeks after completion of nCRT.

Study burden and risks

The main risk for participating patients is the risk of complications (e.g. perforation or excessive bleeding) due to performing WATS in an irradiated

esophagus. Prior studies investigating WATS for Barrett*s esophagus (n=18.596) and studies investigating normal brush sampling (n=67) and bite-on-bite biopsies (n=123) for patients who underwent nCRT reported no perforations or excessive bleeding. The current SANO trial (n>500) reported one excessive bleeding from a gastric ulcer after endoscopy. This bleeding was related to the endoscopic procedure in time but not causally related to the the bite-on-bite biopsies (which were taken at a different location). Therefore, the risk of the present study is considered low.
On the contrary, by performing additional WATS a larger part of the original tumor area can be covered which potentially increases the chance of detecting residual disease and therewith decrease the number of false-negative clinical response evaluations. Early detection of residual disease will result in more timely and appropriate surgical resection.

Contacts

Public
Erasmus MC, Universitair Medisch Centrum Rotterdam

Dr. Molewaterplein 40
Rotterdam 3015CE
NL
Scientific
Erasmus MC, Universitair Medisch Centrum Rotterdam

Dr. Molewaterplein 40
Rotterdam 3015CE
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

- He/she underwent neoadjuvant chemoradiotherapy according to CROSS and will undergo a clinical response evaluation according to the SANO protocol.
- Baseline OGD with biopsies has been performed with documentation of the esophageal sphincter, Z-line (where the squamous epithelium of the esophagus meets the columnar epithelium), esophagogastric junction (upper border of gastric folds) and diaphragmatic impression (all given as the distance from the incisors in cm) as well as photographic re-cordings of suspected lesions for future reference;
- CRE-1 endoscopy with bite-on-bite biopsies has been performed after which no histologi-cal evidence of residual tumor has been found;
- Age >=18;
- Written, voluntary, informed consent;
- (And in part 1 of the study: CRE-2 has been performed after which no histological evi-dence of residual tumor has been found)

Exclusion criteria

- Language difficulty, dementia or altered mental status prohibiting the understanding and giving of informed consent;
- Non-traversable tumor for the endoscope (*no-pass*) during the OGD at which WATS should be performed;
- Taking anticoagulant drugs (vitamin K antagonist, heparin or heparin derivative substance, or directly acting oral anticoagulant (DOAC)) or having coagulopathy with INR > 2.0 or thrombocytopenia with platelet counts < 50,000.

Study design

Design

Study type: Interventional

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

Recruitment

NL

Recruitment status:	Will not start

Enrollment:	20
Type:	Anticipated

Medical products/devices used

Generic name:	WATS-3D
Registration:	Yes - CE intended use

Ethics review

Approved WMO Date:	25-02-2021
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	NL75494.078.20