Myeloid cell reprogramming in thyroid carcinoma

No registrations found.

Ethical review	Not applicable
Status	Other
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON21311

Source
NTR

Health condition

Thyroid carcinoma

Sponsors and support

Primary sponsor: Radboudumc
Source(s) of monetary or material Support: KWF

Intervention

Outcome measures

Primary outcome

Transcriptional and epigenetic signature and function of TAMs, BM myeloid progenitors and circulating macrophages before and after treatment.

Secondary outcome

Presence of circulating tumor cells (CTC) and changes in circulating metabolites (either tumor-derived or tumor-induced) concentrations (metabolomics) associated with the functional reprogramming of the immune cells.

Study description

Study objective

1. We first propose that in advanced TC, not only tumor-associated macrophages (TAMs), but also circulating monocytes and bone marrow (BM) myeloid progenitors are functionally reprogrammed by tumor-derived metabolites even before their recruitment in the TME.

2. Radioactive iodide (I131)(RAI) is a very effective therapy for patients with TC, but is less effective in patients with advanced, metastatic tumors. We hypothesize that by exposing tumor antigens to the immune system, RAI might induce immunogenic effects at the level of the TME with reprogramming of both TAMs present in the TME and circulating monocytes, towards a tumor suppressive phenotype. This may further potentiate the effects of RAI. In addition this could be explored in the future as a basis for immunotherapy for tumors that are refractory to conventional treatment.

Study design

-before treatment

-surgery

-30 days after surgery

-7days after RAI treatment

-30days after RAI treatment

Intervention

Not applicable.

Contacts

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Eligibility criteria

Inclusion criteria

In order to be eligible to participate in this study, a subject must meet all of the following criteria:

In general: Subjects should be at least 18 years old and mentally competent

Patients with TC:

Group 1:

-newly diagnosed patients with TC that are therapy naïve and are planned to receive conventional treatment by surgery followed by RAI
-no evidence of local or distant metastases

Group 2:

-patients with TC with evidence of distant metastases (either newly diagnosed patients who are therapy naïve or patients with persistent or recurrent disease)

-at least 4 months since the previous treatment with RAI (in the patients who have had this treatment in the past)

Controls:

Group 3:

-patients with MNG that are euthyroid and in which the decision has been taken to undergo surgery because of obstructive symptoms or for cosmetic reasons

Group 4:

-patients with MNG that are euthyroid and in which the decision has been taken to undergo RAI because of obstructive symptoms.

Group 5:

-healthy individuals who are euthyroid and have no evidence of thyroid disease.

Exclusion criteria

A potential subject who meets any of the following criteria will be excluded from participation in this study:

-Mentally incompetent

-Pregnant or breastfeeding

-Known inflammatory or infectious diseases or an immunosuppressive status;

-Using medication interfering with the immune system

-Reduced platelets counts or other conditions associated with an increased risk of bleeding

-Severe comorbidities: other active malignancy (except for basal cell carcinoma)

-Serious psychiatric pathology

-A self-reported alcohol consumption of >21 units per week

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other

Control: N/A , unknown

Recruitment

NL

Recruitment status:	Other
Start date (anticipated):	01-10-2017
Enrollment:	50
Type:	Unknown

Ethics review

Not applicable
Application type: Not applicable

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
NTR-new	NL6817
NTR-old	NTR7003
Other	NL62671.091.17 : 2017-3628

Study results