Hodgkin-biomarkers

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON28180

Source
Nationaal Trial Register

Brief title
Hodgkin-biomarkers

Health condition

Pediatric Hodgkin lymphoma

Sponsors and support

Primary sponsor: Erasmus MC - Sophia
Source(s) of monetary or material Support: fund = initiator = sponsor

Intervention

Outcome measures

Primary outcome

The aim of this project is to identify biomarkers and novel therapeutic targets for pediatric Hodgkin lymphoma.

Secondary outcome

To achieve this aim we defined three objectives:
1. Hodgkin Reed-Sternberg cells: we intend to perform whole exome sequencing and gene

expression arrays of FACS-sorted malignant Hodgkin and Reed-Sternberg cells to get insights in their genetic profile to identify therapeutic targets.
2. Tissue microenvironment: we wish to investigate the tumor microenvironment by immunohistochemistry and gene expression profiling of microenvironment-derived T-cells to identify and validate new biomarkers (TARC, PD-1) and therapeutic targets.
3. Serum biomarkers: To investigate the value of serum TARC and other biomarkers (see table 1 of the protocol) and levels of cfDNA as disease response markers after each cycle of chemotherapy and directly compare it to the PET scan. We will analyze serum and blood samples after treatment and during follow-up to identify biomarkers for disease recurrence.

Study description

Background summary

With this project we hope to identify biomarkers and novel therapeutic targets for pediatric Hodgkin lymphoma.

2.1 Population (base)
All patients with a suspected diagnosis of Hodgkin lymphoma will be offered to participate in this study. Patients that have a confirmed diagnosis of classical Hodgkin Lymphoma will be checked on the inclusion and exclusion for the Hodgkin lymphoma group (paragraph 2.2) . Patients that do not have the diagnosis classical Hodgkin Lymphoma will be checked on the inclusion and exclusion criteria for the control group (paragraph 2.3). If a patient isn’t eligible for both groups this will be considered as a screen failure and remaining bodily material will be destroyed

Study objective

Although classical Hodgkin Lymphoma (CHL) in pediatric patients has a good prognosis, the outcome is associated with a substantial proportion of treatment-related toxicity and still about 10-20% of the patients progress during or relapse after treatment. Strikingly, therapeutic regimens have not changed much during the past decades. Current treatment protocols rely on chemo- and radiotherapy, whereby patients are classified at diagnosis into three different treatment groups based on a clinical staging system. Radiotherapy can be omitted based on Fluoro-Deoxyglucose-Positron emission tomography CT (PET-CT) treatment response.

HL is considered an immunological disease, where reactive cells in the tumor microenvironment greatly outnumber malignant Hodgkin- and Reed-Sternberg (HRS) cells. The microenvironment supports proliferation and survival of HRS cells. Due to active crosstalk between HRS cells and their microenvironment, serum biomarkers should be detectable and may be a surrogate for lymphoma viability. HL biology impedes development of in vitro and in vivo assays for functional studies to discover new therapeutics. Genetic analysis of malignant Hodgkin cells has been hampered by their scarcity and has largely

been done with laser-dissected samples. In addition, apart from a clinical staging system at diagnosis, there have been no prognostic molecular markers to stratify patients into different therapy groups. Taken together this calls for efforts to identify biomarkers and get an in-depth understanding of HL immunology and biology to discover new therapeutic targets en less toxic therapies.

Study design

Baseline characteristics

Clinical parameters including age, sex, stages according to the Cotswolds revision of the Ann Arbor staging system, histology and the presence of B symptoms will be collected. The following laboratory parameters will be recorded at time of diagnosis and during follow-up at the same time points as serum and blood samples for biomarker identification are taken: Erythrocyte sedimentation rate (ESR), leukocyte count and differentiation, lymphocyte subpopulations, thrombocyte count, hemoglobin, creatinine, albumin and C-reactive protein. EBV status and treatment regime will be registered at diagnosis.

Blood biomarkers

Serial serum and blood samples will be collected at diagnosis (baseline) and at fixed time points during treatment and follow-up

Intervention

Not applicable,

Contacts

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Eligibility criteria

Inclusion criteria

Hodgkin lymphoma group
In order to be eligible to participate in the Hodgkin lymphoma group, a subject must meet all of the following criteria:
- Diagnosis of classical Hodgkin Lymphoma confirmed by reference pathology
- Patient aged below 18 at time of diagnosis
- Treatment according the European Network of Paediatric Hodgkin`s Lymphoma Second International Inter-Group Study for Classical Hodgkin’s Lymphoma in Children and Adolescents (EuroNet-PHL-C2) protocol or treatment for relapsed or refractory patients.
- Written informed consent of the patient and/or the patient's parents or guardians according to national laws

Control Group
In order to be eligible to participate in the control group a subject must meet all of the following criteria:
- No diagnosis of classical Hodgkin Lymphoma confirmed by reference pathology
- Patient aged below 18 at time of diagnosis
- Written informed consent of the patient and/or the patient's parents or guardians according to national laws

Exclusion criteria

A potential subject who meets any of the following criteria will be excluded from participation in this study:
- HIV positivity
- Other underlying immunologic disorders, with the exception of Epstein Barr Virus

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	16-11-2016
Enrollment:	320
Type:	Anticipated

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion

Date:	11-12-2017
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 54726
Bron: ToetsingOnline
Titel:

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL6706
NTR-old	NTR6876
CCMO	NL52872.078.15
OMON	NL-OMON54726

Study results