The Mesenchymal Stem Cell biomarker study

Published: 28-04-2015 Last updated: 10-08-2024

Analyse the correlation between baseline MSC level in peripheral blood from cancer patients and their primary tumor type.

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Miscellaneous and site unspecified neoplasms malignant and unspecified
Study type	Observational non invasive

Summary

ID

NL-OMON41879

Source ToetsingOnline

Brief title MSC biomarker study

Condition

• Miscellaneous and site unspecified neoplasms malignant and unspecified

Synonym Cancer, tumors

Research involving Human

Sponsors and support

Primary sponsor: Nederlands Kanker Instituut Source(s) of monetary or material Support: KWF subsidie

Intervention

Keyword: Biomarker, Cancer, Circulation, MSCs

Outcome measures

Primary outcome

MSCs count in peripheral blood

Secondary outcome

Study description

Background summary

Chemotherapy remains the backbone of treatment for the majority of patients with disseminated cancers. However, response to chemotherapy is often transient. It is becoming evident that the tumor microenvironment plays a crucial role in the development of resistance. For example, tumors can modulate their microenvironment by recruiting different types of cells and making use of the functions of these cells. One of these cell types are the Mesenchymal Stem Cells (MSCs). Previous research has brought to light that these MSCs can produce 2 types of fatty acids (PIFAs), that can induce chemotherapy resistance.

The release of endogenous PIFAs may thus contribute significantly to the development of chemoresistance. To our knowledge, it is currently unknown if this accounts for different tumor types equally. The aim of this study is therefore to determine the correlation between primary tumor type and baseline MSCs level. A better understanding of this correlation could help to develop specific interventions to improve the therapeutic index of chemotherapy.

Study objective

Analyse the correlation between baseline MSC level in peripheral blood from cancer patients and their primary tumor type.

Study design

This study aims at retrieving 16 ml of peripheral blood from patients suffering from either CRC, gastric cancer, prostate cancer or sarcoma. The blood

withdrawal will always be combined with a withdrawal performed in the course of regular diagnostics, or if venous access allowing blood withdrawal is already in place. Patients will not undergo extra venepuncture because of this study.

Study burden and risks

A single blood withdrawal either combined with a standard of care venepuncture, either performed using an existing intrvenous access point only poses a minor burden on patients.

Contacts

Public Nederlands Kanker Instituut

Plesmanlaan 121 Amsterdam 1066 CX NL Scientific Nederlands Kanker Instituut

Plesmanlaan 121 Amsterdam 1066 CX NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

1) Patients with a histologically proven malignancy of one of the following types: colorectal cancer, gastric cancer, prostate cancer or sarcoma.

2) Undergoing venous blood sampling as part of standard of care diagnostics or intravenous access in place to allow for blood withdrawal.

3) Patients must have given written informed consent before any study specific procedures.

Exclusion criteria

1) Patients, currently receiving anti-cancer treatment are not eligible to participate in this study.

Study design

Design

Study type: Observational non invasive		
Open (masking not used)		
Uncontrolled		
Other		

Recruitment

NL	
Recruitment status:	Recruiting
Start date (anticipated):	07-09-2015
Enrollment:	40
Туре:	Actual

Ethics review

Approved WMO	
Date:	28-04-2015
Application type:	First submission
Review commission:	METC NedMec

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** NL52028.031.14