Study of EMF Neutrophil Activation effects phase 1

Published: 31-05-2021
Last updated: 08-04-2024

To show that this EMF exposure activates neutrophils in a group of subjects with diversity in age and gender.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Hepatobiliary neoplasms malignant and unspecified
Study type	Interventional

Summary

ID

NL-OMON50859

Source
ToetsingOnline

Brief title
Neutrostim

Condition

- Hepatobiliary neoplasms malignant and unspecified

Synonym
Prevention and/or reduction of infectious disease

Research involving
Human

Sponsors and support

Primary sponsor: Wageningen Universiteit
Source(s) of monetary or material Support: ZonMW

Intervention

Keyword: EMF, immune activation

Outcome measures

Primary outcome

Increased neutrophil granularization

Secondary outcome

na

Study description

Background summary

It is known from literature and own research that phagocytic immune cells, and in particular neutrophils (neutrophil granulocytes, the most numerous white blood cells) react to weak electromagnetic fields.
In animals, the following was measured under infection pressure: increased activity of immune cells, (50 +%) reduction in mortality, (15 +%) reduction in tissue damage, improvement in growth. In human cells (neutrophils) (25 +%) increased functional activity has been measured.

The hypothesis is that A. exposure can also have a beneficial effect on the course of infectious diseases in humans, because B. neutrophils are activated.

In this study, part B of the hypothesis is verified for a group of subjects that also includes the elderly.

Study objective

To show that this EMF exposure activates neutrophils in a group of subjects with diversity in age and gender.

Study design

Double-blind placebo-controlled trial with crossover (repeat with placebo and test reversed)

Intervention

30 minutes exposure to a weak electromagnetic field with a specific signal content.
The field strength is approximately 5 micro Tesla, which is a factor of 10

below the ICNIRP / EU safety guideline. Compare: in the MRI a 5,000 times stronger electromagnetic field with comparable signal content is applied (for the varying gradient fields), and a 1,000,000 times stronger static field.

Study burden and risks

very light burden
no risk

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

A group of volunteers, diverse in age and gender

Exclusion criteria

Immune related disease
pregnancy

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	21-06-2021
Enrollment:	40
Type:	Actual

Medical products/devices used

Generic name:	Immune activation with Electromagnetic Fields
Registration:	No

Ethics review

Approved WMO Date:	31-05-2021
Application type:	First submission
Review commission:	CMO regio Arnhem-Nijmegen (Nijmegen)

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	NL75559.091.20