The impact of prolonged walking exercise on blood glucose levels in patients with type 1 diabetes: The Four Days Marches Study.

No registrations found.

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

Summary

ID

NL-OMON28501

Source NTR

Brief title Diabetes and walking exercise

Health condition

Type 1 diabetes, insulin depedent diabetes mellitus

Sponsors and support

Primary sponsor: UMC St Radboud Source(s) of monetary or material Support: -No financial support -Continuous glucose monitoring devices and glucose sensors provided by Medtronic

Intervention

Outcome measures

Primary outcome

-Twenty-four-hour blood glucose homeostasis as measured by continuous glucose monitoring (specifically: average 24-h glucose concentrations, glycemic variability, hyperglycaemia, hypoglycaemia).

-Dosing of exogenous insulin.

Secondary outcome

-Physical activity level

-Dietary intake

Study description

Background summary

Twenty-four-hour glycemic control will be assessed in 10 patients with type 1 diabetes. These patients will be monitored over the 2 days prior to and during the 'Four Days Marches Nijmegen' event. The 2 days prior to the Four Days Marches will provide a reference frame for patients' 24-h glycemic control (non-exercise control period). The subsequent 4-day period will be used to assess changes in patients' glycemic control (hyperglycemia, hypoglycemic, glycemic variability) and insulin administration in response to ultra-endurance exercise. The unique character of the Four Days Marches event will provide novel insight into patients' glycemic response to ultra-endurance exercise.

Study objective

We hypothesize that exogenous insulin requirements will be substantially reduced during the days with prolonged physical activity as opposed to the control condition. Moreover, we expect that these reduced insulin requirements will not be accompanied by an increased occurrence of hyperglycemic episodes.

Study design

Measurements are conducted over the 2 days prior to the marching event, and over the 4 subsequent days of the marching event.

Intervention

Twenty-four-hour blood glucose homeostasis will be assessed by continuous glucose monitoring in type diabetic patients participating in the world's largest marching event: The

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Four Days Marches Nijmegen.

Continuous glucose monitoring will be applied on the 2 days prior to (reference period), and during 4 subsequent of prolonged walking exercise.

Contacts

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Eligibility criteria

Inclusion criteria

-Voluntary participation for the Four Days Marches, July 16-19, 2013

-Type 1 diabetes

Exclusion criteria

-HbA1c >10%

Study design

Design

Study type: Intervention model: Observational non invasive Parallel

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Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NI

Recruitment status:	Recruitment stopped
Start date (anticipated):	01-07-2013
Enrollment:	10
Туре:	Actual

Ethics review

Positive opinion	
Date:	04-07-2013
Application type:	First submission

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	NL3899
NTR-old	NTR4061
Other	: 2012/186/1
ISRCTN	ISRCTN wordt niet meer aangevraagd.

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Study results

Summary results

N/A