

The impact of lipoic acid and alpha-tocopherol supplementation in patients with type 2 diabetes mellitus

Submission date 16/06/2010	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 12/08/2010	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 12/08/2010	Condition category Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

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Additional identifiers

Study information

Scientific Title

The impact of alpha-lipoic acid and alpha-tocopherol supplementation in the control of insulin resistance and other metabolic syndrome components in patients with type 2 diabetes mellitus: A double-blind, randomised, placebo-controlled trial

Acronym

ALA and ATO in patients with DM2

Study objectives

If the introduction of combined antioxidant alpha-lipoic acid (ALA) and alpha-tocopherol (ATO) modifies the components of the Metabolic Syndrome in patients with type-2 Diabetes mellitus.

Ethics approval required

Old ethics approval format

Ethics approval(s)

The local ethics committee approved on the 19th of August 2004 (ref:128/04)

Study design

Randomised double blind placebo controlled trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Diabetes mellitus type II (DM2)

Interventions

One or two types of antioxidants or placebo for a period of four months (16 weeks)

1. 28 patients received a supplement consisting of 600 mg / day of lipoic acid and 800 mg / day of vitamin E
2. 28 patients received a supplement consisting of 600 mg / day of lipoic acid
3. 28 patients received a supplement consisting of 800 mg / day of vitamin E
4. 28 patients received placebo

Intervention Type

Other

Phase

Phase IV

Primary outcome(s)

Assessing the impact of supplemental antioxidants vitamin E and lipoic acid in the indicators of metabolic syndrome in patients with DM2.

All outcomes were measured at baseline and post-treatment (i.e. 16 weeks)

Key secondary outcome(s)

1. Assessing the impact of combined supplementation of antioxidants alone and in insulin resistance, as detected by the method HOMA (Homeostasis Model Assessment) in patients with DM2
2. Determine the serum levels of vitamin E in patients with DM2 before and after supplementation with antioxidants
3. To evaluate the effect of supplementation with antioxidants in the biochemical indicators of MS patients with DM2 before and after the intervention

4. To evaluate anthropometric measurements before and after supplementation with antioxidants

All outcomes were measured at baseline and post-treatment (i.e. 16 weeks)

Completion date

28/02/2006

Eligibility

Key inclusion criteria

1. Aged 38-75 years
2. Patients with type II diabetes mellitus (DM2)
3. Registered in the Integrated Health Center (NIS) and Polyclinics in Jundiai, Brazil
4. At least two years of disease diagnosis
5. Without the presence of episodes of cetocidose and A1c less than 9.0% (data from the last examination until four months before the screening)

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Insulin therapy at baseline or in the segment of the research
2. Taking vitamin supplements with lipoic acid and/or vitamin E in the formulation
3. Pregnant status or become pregnant during the study
4. Smokers consuming more than 10 cigarettes/day
5. Daily intake alcoholic beverages
6. Presence of renal and/or cardiovascular disease
7. DM2 decompensation due to infection
8. Change or introduction of new medication
9. Family history of autoimmune disease

Date of first enrolment

01/09/2005

Date of final enrolment

28/02/2006

Locations

Countries of recruitment

Brazil

Study participating centre

Av Dr Arnaldo, 715

São Paulo

Brazil

01246-904

Sponsor information

Organisation

State of São Paulo Research Foundation (FAPESP) (Brazil)

ROR

<https://ror.org/02ddkpn78>

Funder(s)

Funder type

Research organisation

Funder Name

State of São Paulo Research Foundation (FAPESP) (Brazil) (ref: 04/04108-1)

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not provided at time of registration