

Effect of apple cider vinegar on delayed gastric emptying in people with type 1 diabetes mellitus.

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The aim was to study the effect of apple cider vinegar on the rate of gastric emptying on insulin-dependent diabetes mellitus patients with diabetic gastroparesis.

Ethische beoordeling	Niet van toepassing
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON23269

Bron

NTR

Verkorte titel

N/A

Aandoening

Type 1 diabetes mellitus, gastroparesis.

Ondersteuning

Primaire sponsor: Malmö University Hospital.

Overige ondersteuning: This study was supported by grants from Malmö diabetes association Sweden.

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The effect of vinegar on the rate of gastric emptying was statistically significant ($p < 0.05$).

Toelichting onderzoek

Achtergrond van het onderzoek

Diabetes mellitus is a growing problem globally and according to Swedish national guidelines does it affect 3-4 % (300000- 350000) of the Swedish population. Studies have shown that 30-50 % of diabetes patients have a delayed gastric emptying and this is believed to be, at least partially, due to vagal denervation caused by autonomic neuropathy. Delayed gastric emptying may cause poor glycemic control especially in those with preprandial antidiabetic treatment giving postprandial hypoglycaemia and symptoms from the gastro intestinal tract like postprandial nausea, vomiting, bloating and early satiety.

Studies have shown that vinegar reduces postprandial blood glucose in healthy subjects and it has been discussed whether this could be explained or not by a delayed gastric emptying. However, the effect of vinegar on gastric emptying in diabetic patients with gastroparesis has not been studied previously.

The aim of this study was therefore to evaluate the influence of vinegar on the gastric emptying in insulin-dependent diabetes mellitus patients with diabetic gastroparesis.

Doel van het onderzoek

The aim was to study the effect of apple cider vinegar on the rate of gastric emptying on insulin-dependent diabetes mellitus patients with diabetic gastroparesis.

Onderzoeksopzet

N/A

Onderzoeksproduct en/of interventie

Gastric emptying rate (GER) was measured by standardized real time ultrasonography on the condition that fasting blood glucose was 3.5 to 9.0 mmol/l. Gastric emptying rate was calculated as the percentage change in the antral cross-sectional area 15 and 90 minutes after ingestion of 300 g rice pudding and two decilitres of water or 300 g rice pudding and two decilitres of water and 30 millilitres of apple cider vinegar. The subjects drank 200 ml water daily before breakfast one week before the measurement of GER. The same subjects drank 200 ml with 30 ml vinegar daily before breakfast for two weeks before the measurement of GER.

Contactpersonen

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Type 1 diabetes patients with diagnosed gastroparesis were included in the study.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Renal failure;
2. Prior gastric outlet obstruction;
3. Connective tissue diseases.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Blindering:	Enkelblind
Controle:	N.v.t. / onbekend

Deelname

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	01-09-2002
Aantal proefpersonen:	10
Type:	Werkelijke startdatum

Ethische beoordeling

Niet van toepassing	
Soort:	Niet van toepassing

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL976
NTR-old	NTR1004
Ander register	:

Register

ISRCTN

ID

ISRCTN33841495

Resultaten

Samenvatting resultaten

BMC Gastroenterol. 2007 Dec 20;7:46.

This study is one of five studies for a PhD graduation. One of the studies has been publicatied by The American Journal of Clinical Nutrition.