Tirzepatide Study of Renal Function in People with Overweight or Obesity and Chronic Kidney Disease with or without Type 2 Diabetes: Focus on Kidney Hypoxia in Relation to Fatty Kidney Disease using Multiparametric Magnetic Resonance Imaging (TREASURE-CKD)

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This study has been transitioned to CTIS with ID 2023-506082-60-00 check the CTIS register for the current data. The objective of this study is to investigate the mechanism(s) of action of tirzepatide in the kidney, in participants who are...

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON51386

Source
ToetsingOnline

Brief title
I8F-MC-GPIG

Condition

- Other condition
- Glucose metabolism disorders (incl diabetes mellitus)
- Renal disorders (excl nephropathies)

Synonym
Obesity and overweight; Chronic kidney disease and kidney disease

Health condition

metabolism and nutrition disorders

Research involving
Human

Sponsors and support

Primary sponsor: Eli Lilly
Source(s) of monetary or material Support: Fully funded by sponsor

Intervention

Keyword: Chronic kidney disease, Overweight or obesity, Renal function, Tirzepatide

Outcome measures

Primary outcome

Following parameters will be determined to compare the effect of tirzepatide

MTD (10 or 15 mg) once a week and placebo after 52 weeks of treatment in

participants with and without T2D:

- kidney oxygenation

Secondary outcome

Following parameters will be determined to compare the effect of tirzepatide

MTD (10 or 15 mg) once a week and placebo after 52 weeks of treatment in

participants with and without T2D:

- body weight

- renal sinus fat

- renal fat content

- renal blood flow

- kidney apparent diffusion coefficient

- glomerular filtration rate

- urinary albumin excretion

- urine albumin-to-creatinine ratio

- kidney inflammation

- kidney oxidative metabolism

- fractional urinary sodium excretion

- 24-hour sodium excretion

- waist circumference

- blood pressure

- heart rate

- HbA1c and CRP

- lipids

- health-related quality of life

- mitochondrial function

Study description

Background summary

The worldwide epidemic of obesity has resulted in an increasing incidence of obesity-related comorbidities, including chronic kidney disease. Treatment options to delay progression to end-stage renal disease in people with CKD are limited, and there is a growing, unmet need to provide people with obesity and CKD with a safe and effective therapy.
Tirzepatide, a novel, dual GLP-1/GIP receptor agonist, has demonstrated robust efficacy activity in lowering blood glucose and inducing weight loss.

Study objective

This study has been transitioned to CTIS with ID 2023-506082-60-00 check the CTIS register for the current data.

The objective of this study is to investigate the mechanism(s) of action of tirzepatide in the kidney, in participants who are overweight or living with obesity and coexisting CKD, with and without T2D, to inform potential future kidney outcomes studies.

Study design

Study I8F-MC-GPIG is a Phase 2b, mechanistic, multicenter, randomized, parallel, placebocontrolled, double-blinded, 52-week study that will investigate the effects on the kidney of tirzepatide (MTD 10 or 15 mg QW), compared with placebo, in participants who are overweight or living with obesity and coexisting CKD, with and without T2D. The pharmacological treatment will be combined with a lifestyle intervention, consisting of a reduced-calorie diet, and increased physical activity.

Intervention

tirzepatide Maximal Tolerated Dose (10 or 15 mg) or placebo.
Tirzepatide or placebo treatment duration is 52 weeks in total: up to 20-week dose escalation period and a 32-week treatment period.
Tirzepatide or matching placebo will be administered weekly by single-dose pen.
Pharmacological treatment will be combined with a lifestyle intervention, consisting of a reduced-calorie diet, and increased physical activity.

Study burden and risks

- Tirzepatide has been associated with following adverse events: feeling sick to the stomach; loose or frequent stools; vomiting; loss of appetite; indigestion; heartburn; feeling tired; fatigue; hard or infrequent stools; passing gas; bloating; belching; stomach pain or discomfort; low blood sugar; injections site reaction (such as redness, irritation, itching, swelling or rash).
- There may be some discomfort from the measurements during the study. For example: taking a blood sample can be a little painful. Subjects will be exposed to some level of radiation due to PET scan. MRI or PET/CT scan can be uncomfortable.
- Taking part in the study will cost extra time and subjects have to go to the research facility for study visits.
- Subjects have to comply with the study agreements such as keep diabetes diary, keep study drug log, follow diet and lifestyle advice.
- GFR will be measured using iohexol, which might cause allergic reactions or hypersensitivity reactions in some people.
- If subjects have type 2 diabetes, they may experience worsening of their

blood sugar levels and related symptoms if they receive placebo. The study doctor will explain to them what measures to take to manage it.
- Participants with T2D may experience discomfort during eye exams.

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

1. Participants without diabetes must have HbA1c of <= 6.5 %.
2. Participants with diabetes must have HbA1c >= 7 % to <= 10.5 % at screening visit.
3. Participants must be at least 18 years of age or the legal age of consent in the jurisdiction where the study is taking place.
4. Participants must have a BMI >= 27kg/cm2 at screening visit.
5. Participants must be diagnosed with CKD having a eGFR >=30 to <= 60 mL/min1.73

m2 or eGFR >= 30 to 75 mL/min/1.73 m2 if UACR > 30 mg/g, calculated by CKD-EPI equation, as determined by central labs at screening visit.
6. Participants must have been receiving an ACE or ARBi that is considered the maximal appropriate dose by the investigator for treatment of CKD or hypertension (unless patient has low blood pressure or hypotension). The dose must have been unchanged for 30 days before screening visit.

Exclusion criteria

For participants with T2D the following exclusion criteria apply:
1. Participants have a history of proliferative diabetic retinopathy or diabetic macular edema or non-proliferative edema or non-proliferative diabetic retinopathy that requires acute treatment.
2. Participants who have uncontrolled diabetes (such as diabetic ketoacidosis) at screening or randomization, in the judgement of the physician.
For participants without T2D the following exclusion criteria apply:
3. Have T1DM or a history of ketoacidosis ot hypersmolar state/coma
4. Have self reported change in body weight >5kgs within the 90 days prior to screening visit
5. Have had or plan to have surgical treatment for obesity (excluding liposuction or abdominoplasty if performed >1 year prior to screening)
6. Have or plan to have endoscopic and or device based therapy for obesity or have had device removal within the last 180 days e.g. mucosal ablation, gastric artery embolization, intragastric balloon and duodenal jejunal bypass device.
7. Have eGFr < 30 mL/min/1.73 m2 calculated by CKD-EPI equation.
8. Have a history of unstable or rapidly progressing renal disease according to investigator judgement.
9. Have a history of a congenital or hereditary kidney disease, like polycystic kidney disease or congenital urinary tract malformations

Study design

Design

Study phase:	2
Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo

Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	06-07-2023
Enrollment:	16
Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	Tirzepatide
Generic name:	Not Applicable

Ethics review

Approved WMO Date:	23-05-2022
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	05-11-2022
Application type:	Amendment
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	21-11-2022
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	10-03-2023
Application type:	Amendment
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)

Approved WMO Date:	26-05-2023
Application type:	Amendment
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)

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
EU-CTR	CTIS2023-506082-60-00
EudraCT	EUCTR2021-005273-47-NL
CCMO	NL81303.056.22