Effect of spironolactone on ischemia reperfusion injury in renal transplant recipients

Submission date	Recruitment status	Prospectively registered
17/12/2012	No longer recruiting	□ Protocol
Registration date	Overall study status	Statistical analysis plan
23/01/2013	Completed	Results
Last Edited		Individual participant data
23/01/2013		Record updated in last year

Plain English summary of protocol

Background and study aims

Ischemia and reperfusion processes are the major causes of acute kidney injury in patients receiving real tissues from a donor (this is called a renal allograft). This leads to different degrees of early post-transplant renal dysfunction. Aldosterone is a traditional treatment but has disadvantages. The aim of the study is to assess whether giving another drug called Spironolactone before and after renal transplant rom living donors decreases renal damage caused by ischemia/reperfusion

Who can participate?

You may participate if you are a patient in hemodialysis or peritoneal dialysis and you will receive a renal allograft from a living donor, you are at least 18 years old, you are male or female, you are compatible with your donor

You cannot enter this study if you receive two or more organs simultaneously and if you receive allograft from a deceased donor.

What does the study involve?

Participants will be randomly allocated to one of three groups of treatment (Spironolactone 50 mg, Spironolactone 100 mg or dummy). All treatments looks identical (1 capsule). Neither you nor your doctors will be able to know or decide which group you are in. You will take the capsule twice a day, three days before transplant surgery and five days after your surgery. The doctors will ask your permission to get a sample of blood and urine before transplant surgery and at days 1, 5 after transplant. They will use the samples to carry out routine laboratory tests in the laboratory that may help them to compare renal function recovery and biomarkers of renal injury. At day five after your surgery your participation will be completed.

What are the possible benefits and risks of participating?

The most common side effect of spironolactone is hyperkalemia (high level of serum potassium).

Where is the study run from?

This study will recruit 60 patients a year from the Transplant Department at Instituto Nacional de Ciencias Médicas Salvador Zubiran in México City, Hospital General de Mexico and Centro Médico Nacional Siglo XXI.

When is the study starting and how long is it expected to run for? From January 2013 to .May 2014.

Who is funding the study?

Mexican Council of Science and Technology and National University of Mexico grants.

Who is the main contact?
Dr Luis E. Morales-Buenrostro
Dr Norma A. Bobadilla, norma.bobadillas@quetzal.innsz.mx

Contact information

Type(s)

Scientific

Contact name

Dr Norma A Bobadilla

Contact details

Vasco de Quiroga no. 15 Col. Sección XVI D.F Mexico 14000 +52 (0) 555 5485-2676 norma.bobadillas@quetzal.innsz.mx

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

REF 421

Study information

Scientific Title

Effect of mineralocorticoid receptor blockade on ischemia / reperfusion injury in renal transplant recipients: A pilot study

Study objectives

Spironolactone reduces the tubular damage and oxidative stress in renal transplant patients from living donor.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethical Committee of National Institute of Medical Sciences and Nutrition (Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubiran), January 2012, Ref 421

Study design

Double-blind randomized placebo-controlled clinical pilot study

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Hospital

Study type(s)

Treatment

Participant information sheet

Not available in web format, please use the contact details below to request a patient information sheet

Health condition(s) or problem(s) studied

Ischemia reperfusion injury

Interventions

The patients will be randomized to receive 50 or 100 mg of spironolactone (Sp) or placebo orally twice daily (BID), 3 days prior to transplant surgery and 50 or 100 mg of Sp or placebo orally BID during three consecutive days after transplantation.

Intervention Type

Drug

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Spironolactone

Primary outcome measure

Reduction of urinary biomarkers of kidney injury [Heat shock protein 72 (HsP72), Interleukin-18 (IL-18), kidney injury molecule-1 (KIM-1)] at baseline, day 1, and 5 post transplantation.

Secondary outcome measures

- 1. Reduction of oxidative stress
- 2. Change in urinary hydrogen peroxide excretion
- 3. Change in urinary nitrates excretion

Overall study start date

01/01/2013

Completion date

01/05/2014

Eligibility

Key inclusion criteria

- 1. Age of 18 years or older, male and female
- 2. Receipt of a live-donor kidney

Participant type(s)

Patient

Age group

Adult

Lower age limit

18 Years

Sex

Both

Target number of participants

60

Key exclusion criteria

- 1. Multi-organ transplant
- 2. Deceased-donor kidney
- 3. Induction with thymoglobuline

Date of first enrolment

01/01/2013

Date of final enrolment

01/05/2014

Locations

Countries of recruitment

Mexico

Study participating centre Vasco de Quiroga no.

D.F

Sponsor information

Organisation

Mexican Council of Science and Technology (Consejo Nacional de Ciencia y Tecnología CONACyT) (Mexico)

Sponsor details

Av. Insurgentes Sur 1582 Col. Crédito Constructor Del. Benito Juárez C.P.: 03940 Mexico DF Mexico

+52 (0) 555 5322-7700 carcer@conacyt.mx

Sponsor type

University/education

ROR

https://ror.org/059ex5q34

Funder(s)

Funder type

Government

Funder Name

Health Sector Grant from Mexican Council of Science and Technology (Fondo Sectorial Salud 2012) (Mexico) Project: SALUD-2012-01-181267

Results and Publications

Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summaryNot provided at time of registration