TITLE: Lipid accumulation in heart transplant from non-diabetic donors to diabetic recipients
NCT number NCT03546062
Date: 19/11/2019

Vanvitelli Ethic Committee

Informed Consent Form for patients undergoing heart transplantation

You may provide the following information either as a running paragraph or under headings as shown below.

Name of Principle Investigator: Prof Raffaele Marfella
Name of Organization: University of Campania "Luigi Vanvitelli"
Name of Project: Lipid Accumulation in Heart Transplant From Non-diabetic Donors to Diabetic Recipients
Version: 1

Information Sheet

Introduction
I am Professor Raffaele Marfella, working for the University of Campania "Luigi Vanvitelli". I am doing research on the heart failure in diabetic patients which is very common in this country and in this region. I am going to give you information and invite you to be part of this research. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research.
This consent form may contain words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me or of another researcher.

Purpose of the research
Diabetic cardiomyopathy (DCM) is defined by the presence of left ventricular systolic dysfunction in the absence of an abnormal loading condition or significant coronary heart disease. DCM is the leading cause of end-stage heart failure (HF) and is responsible for half of all heart transplants (HTx). Endocrine disorders, including diabetes, are known to be associated with DCMs. Diabetes mellitus (DM), which is present in 75% of patients with idiopathic DCM, is an independent risk factor for the development of heart failure and death in DCM. Therefore, DM may exacerbate the need for HTx; moreover, diabetic patients are less suitable for HTx and DM remains an independent risk factor for death even after HTx. Recent studies have revealed the presence of diabetic cardiomyopathy, a condition of myocardial dysfunction without coronary heart disease. This term was first introduced by Rubler et al. in 1972, which highlighted patients with diabetes and congestive heart failure with normal coronary arteries. The pathophysiological mechanisms by which diabetes affects the development and progression of diabetic heart disease are not known. Therefore, the aim of our study will be to evaluate, in the diabetic heart removed, the presence of any cellular alterations related to diabetic disease. In addition, the progression of such lesions in the transplanted heart in diabetic patients will be evaluated.

Type of Research Intervention
This research will involve your participation in a observational prospective study that that it won't change the management of your condition according the guidelines for heart tranplantation

Participant Selection
You are being invited to take part in this research because we feel that the evaluation of your pathology can contribute much to our understanding and knowledge of the effects of diabetes on heart dysfunction. A cohort of consecutive patients (diabetics vs. non-diabetics) with DCM and NYHA class III/IV heart failure refractory to maximum medical therapy and treated with cardiac transplantation at the Division of Cardiac Surgery of the University of Campania "Luigi Vanvitelli" will be evaluated prospectively. At the Department of Medical Sciences will be conducted the clinical follow-up for cardiometabolic evaluation (eg routine, glycemic compensation).

Voluntary Participation
Your participation in this research is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate all the services you receive at this Centre will continue and nothing will change.

Procedures
You will be followed through an echocardiographic evaluation (enrolment and 3-6-12 months follow-up), to evaluate cardiac functional parameters, metabolic parameters and survival outcomes (death for all causes, cardiac death, re-hospitalisation for heart failure). In all transplanted patients endo-myocardial biopsies (EMB) are collected according to normal clinical practice by the "ASHI" guideline: weekly for the first month; every 2 weeks for the following month; 1 for the following 4 weeks; 1 for the following 6 weeks; every 3 months for the following 2 years; and finally every 6 months for the following 3 years. 2-6 (usually 4, 1 to 3 mm3) fragments of myocardial tissue will be collected from the apical segment of the right side of the interventricular septum (IVS). The collected myocardial tissue will be immediately analyzed for histopathological evaluation of rejection. From the remaining portion of tissue 3 portions will be obtained: one portion will be incorporated into the OCT compound for immunohistochemical analysis, a second portion will be frozen immediately in liquid nitrogen and stored at -70°C for PCR evaluation, and a third portion will be used for quantitative evaluations performed by ELISA.
The conservation and morpho-functional evaluation of biopsy samples will be carried out at the Bio-Bank of the University of Campania "Luigi Vanvitelli".

Duration
The research takes place over 12 months in total. During that time, we will visit you weekly

Risks
Explain and describe any risks that you anticipate or that are possible. The risks depend upon the nature and type of qualitative intervention, and should be, as usual, tailored to the specific issue and situation.

Benefits
There will be no direct benefit to you, but your participation is likely to help us find out more about how to prevent and treat heart dysfunction.
(Example:

Reimbursements
You will not be provided any incentive to take part in the research. However, we will give you for your time, and travel expense

Confidentiality
We will not be sharing information about you to anyone outside of the research team. The information that we collect from this research project will be kept private. Any information about you will have a number on it instead of your name.

Sharing the Results
Nothing that you tell us today will be shared with anybody outside the research team, and nothing will be attributed to you by name. The knowledge that we get from this research will be shared with you and your community before it is made widely available to the public. Each participant will receive a summary of the results. There will also be small meetings in the community and these will be announced. Following the meetings, we will publish the results so that other interested people may learn from the research

Who to Contact
If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact any of the following: Prof. Raffaele Marfella, University of Campania "Luigi Vanvitelli" Piazza Miraglia 2, Internal Medicin Division; +390815665110 – 3391639624 raffaele.marfella@unicampania.it

Part II: Certificate of Consent

I have been invited to participate in research about heart dysfunction.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant_____
Signature of Participant _____
Date _____
Day/month/year

If illiterate [1]

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness_____ **Thumb print of participant**

Signature of witness _____

Date _____
Day/month/year

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

1.
2.
3.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this ICF has been provided to the participant.
Print Name of Researcher/person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____
Day/month/year

[1] A literate witness must sign (if possible, this person should be selected by the participant and should have no connection to the research team). Participants who are illiterate should include their thumb print as well.