



Procedure Information Sheet

Introduction

Patients with heart disease may not have symptoms at rest. This applies in particular in coronary artery disease, in which there is narrowing of coronary artery but the supply of blood to heart muscle is adequate at rest. Exercise increases demand of blood supply to heart muscle which is not supported in the presence of arterial narrowing. The change can be picked up by different methods. When a patient cannot do exercise well, drugs can be used instead to induce stress. Pharmacological stress echocardiography (PSE) detects a change in heart contraction during and after drug infusion by the use of an echocardiogram.

Indication

It can be used to diagnose coronary heart disease or to assess its severity. It is also helpful in measuring physical fitness of patients with known heart attack.

The Operation / Procedure

1. Patient will be asked to lie on a stretcher.
2. Drugs (such as Dobutamine) will be given intravenously in a dose adjusted to the body weight, and at different infusion rates.
3. Echocardiographic images will be obtained.
4. Attending doctor and nurse will continuously monitor the symptoms, electrocardiogram and blood pressure to minimize the risk.
5. Infusion will be stopped when different sets of images are obtained, or when patient develop signs and symptoms.
6. The examination room will be equipped with necessary equipment for emergency resuscitation.

Before the Operation / Procedure

1. The test is often performed as an outpatient procedure.
2. Please stop medication as advised by doctor.
3. Light meal can be taken, but preferably at least 2 hours before the test.
4. Elderly will preferably be accompanied by relatives or friends.
5. Doctor will explain the details of the procedure together with the possible risks and complications. Patient has to sign an informed consent.
6. An intravenous drip will be set up, and allergic history will be asked.

After the Operation / Procedure

1. Patient has to rest for 20-30 minutes after the test before leaving is allowed.
2. If medical problem being severe, patient may be admitted to ward for further management.

Risk and Complications

1. The procedure carries certain risks, including cardiac arrhythmias, acute myocardial infarction or even cardiac arrest and death (<0.1%).
2. Minor complications include allergy to dobutamine, nausea, shortness of breath, transient arrhythmias or hypotension.

Alternative Treatment / Investigation

Alternative methods include other forms of stress tests (such as exercise treadmill, radionuclide test or magnetic resonance), or cardiac catheterization.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

Smart Patient Website by Hospital Authority:
Pharmacological Stress Echocardiography (4/2019)

Patient's Label
Patient Name: _____
Hospital No: _____
Episode No: _____

Patient's Signature: _____ Date: _____