香港浸信會醫院
Hong Kong Baptist Hospital

Procedure Information Sheet

Introduction

1. Myocardial perfusion scintigraphy is used to assess the regional blood supply to the heart muscle through the coronary arteries. The test is usually ordered to diagnose coronary artery disease and assess its severity.
2. It usually involves two sets of scanning, one in rest state and the other after stress. A stress test may be in the form of a treadmill exercise or by a drug (dipyridamole/adenosine).

The Operation / Procedure

1. Part I:
   1.1. Radiotracer injection at resting state.
2. Part II:
   2.1. Treadmill / pharmacological stress test with radiotracer injection.
   2.2. The stress test is supervised closely by a doctor. Your electrocardiogram (ECG), blood pressure and pulse will be monitored during and for sometime after the stress test. You will have to exercise on a treadmill machine, or receive dipyridamole/adenosine infusion, with or without some low grade exercise. At peak stress, a radioactive drug will be injected via a catheter at your arm or forearm. You may receive an additional drug called aminophylline when you have significant side effect from dipyridamole/adenosine.
   2.3. Imaging will be started shortly afterwards.

Risk and Complication

1. Exercise stress: The risk of non-fatal or major cardiac complication (e.g. cardiac arrhythmia requiring resuscitation, heart failure, prolonged angina, or heart attack) is approximately 2 - 10 in 10,000 tests. The chance of death as a result of exercise test in average patient is approximately 1 in 10,000 although the risks of complications and death may be higher in patients who are known to have severe coronary disease.
2. Dipyridamole stress: More than 50% of patients may develop side effects (flushing, chest pain, headache, dizziness or hypotension). The incidence of high-degree AV and SA block is about 2%. The risk of fatal or non-fatal myocardial infarction is 5 each in 10,000 tests.
3. Adenosine stress: More than 80% of patients may develop mild side effects (flushing, chest pain, headache, dizziness, dyspnea or hypotension) but most side effects resolve rapidly (<10 seconds) on discontinuing the infusion. The incidence of high-degree AV and SA block is about 7%. The risk of fatal or non-fatal myocardial infarction is less than 10 each in 10,000 tests.

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

Verberne HJ, Acampa W, Anagnostopoulos C, Ballinger J, Bengel F, De Bondt P, et al. 2015 updated EANM procedural guidelines for radionuclide myocardial perfusion imaging with SPECT and SPECT/CT. http://eanm.org/publications/guidelines/2015_07_EANM_FINAL_myocardial_perfusion_guideline.pdf. 2015. Accessed 7 July 2015.

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

Patient's Signature:_____ Date:_____