Vasodilator Stress Myocardial Perfusion Imaging Test

When will I know the results?

The scan images will need to be processed by computers and need some time to be analysed to detect any abnormality. Your doctor will inform you of the final report at your next clinic appointment. If there is any severe abnormality that requires prompt medical attention, your doctor will contact you.

What are the potential risks/complications with this test?

The vasodilator medication is safe and tolerable. Some may experience minor side effects such as dizziness, headache, nausea, and chest discomfort. These symptoms usually last only a few minutes.

Overall, this test is very safe. You will be constantly monitored by trained medical personnel during the procedure.

The radioactive chemical given is very safe and has no known immediate side effects. The amount of radioactivity given during the test is very low and has not been shown to cause cancer. However, you should inform the doctor if you are pregnant.

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Blood vessels supplying the heart with blood can be abnormally narrowed by a process called atherosclerosis. When this happens, the blood flow to the heart may be insufficient during physical exertion. Exercise stress myocardial perfusion test assesses the blood flow (perfusion) to the heart muscles (myocardium). This technique detects areas of the heart with poor blood flow.

**What is vasodilator stress myocardial perfusion imaging test?**

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**What is the purpose of the test?**

This test assesses the blood flow (perfusion) to the heart. It also gives the doctor an indication of how strongly the heart is beating (ejection fraction). These are the two most important pieces of information a doctor needs when evaluating a patient with heart disease. The test is more accurate and gives more information than treadmill stress test alone.

**What can I expect?**

This test consists of 2 phases - the **stress phase** and the **rest phase**, both are usually done on the same day.

Before the test, your height and weight will be taken and a small plastic cannula is inserted in one of the veins on your hand for injection of the radioactive chemical.

Dipyridamole, a vasodilator medication, will be given to you through the plastic cannula over 4 minutes. Your ECG and blood pressure will be monitored during the test. Please inform the supervising doctor if you feel unwell during this process.

After completion of the infusion, a radioactive chemical will be injected into the intravenous needle. You will next rest for about 1 hour during which you can have a drink. Images of your heart will be taken with a gamma-camera after this. You should relax and lie fairly still so that accurate pictures can be obtained. The process will take about 15 minutes.

**What should I do?**

1. Avoid caffeinated food and drinks, such as Coke, coffee, tea and chocolate, for at least 12 hours before the test as caffeine may reduce the effectiveness of the vasodilator agent.

2. Asthmatic patients should not undergo this test as the vasodilator medicine can cause an asthma attack. Please inform your doctor if you have a history of asthma.

3. Do not take beta-blockers, nitrates, diltiazem and verapamil 48 hours prior unless instructed by your doctor. Do, however, bring the medication with you to the laboratory so that you may take them after the test. If you are unsure, please call our Enquiry Hotline at (65)6772 5383.

**Following this first scan, you will need to wait for about 2 hours before the rest phase of the test. During this waiting period, you will be allowed to leave the laboratory but must return at the appointed time. Upon your return, another injection of the radioactive chemical will be given. A new set of pictures of your heart will be acquired about 1 hour after the injection. With the conclusion of this second scan, the test is complete. The test may be performed over 2 days if you weigh more than 85kg.**