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. Exercise treadmill test (ETT) detects a change in electrocardiogram waveforms during and after exercise. Some patients may have waveforms not suitable for assessment. Exercise stress echocardiography (ESE) provides an alternative by the use of an echocardiogram to detect a change in heart contraction during and after exercise.

Importance of Procedure
Both ETT and ESE can be used to diagnose heart disease or to assess its severity. The tests are especially useful for diagnosing coronary heart disease. They are also helpful in measuring physical fitness of patients with known heart attack. If you refuse ETT or ESE, we may not give an appropriate diagnosis or prognosis of your heart disease. Alternative methods include other forms of stress tests (such as pharmacological stress echocardiography, radionuclide test or magnetic resonance), or cardiac catheterization.

Pre-Procedure Preparation
• Both tests are often performed as outpatient procedures.
• Please put on sports wear and sport shoes for the tests.
• Light meal can be taken, but preferably at least 2 hours before the test.
• Elderly will preferably be accompanied by relatives or friends.
• Our staff will explain to you and your relatives the details of the procedure together with the possible risks and complications. You have to sign an informed consent.

The Procedure
• You will be asked to walk on a motor driven treadmill with progressively increased speed and incline until you achieve a target heart rate (according to your age and medical condition), or develop significant electrocardiogram changes, symptoms or signs.
• Attending doctor, nurse or technician will continuously monitor your symptoms, electrocardiogram and blood pressure to minimize the risk.
• The treadmill room will be equipped with necessary equipment for emergency resuscitation.
• If you are also attending for ESE, your doctor or technician will perform a pre-exercise imaging with the echocardiogram machine.
• Right after exercise, you will be asked to quickly lie on a stretcher, so that your doctor or technician can acquire the necessary post-exercise images.

Patient’s Label

C01
Post-Procedure Care

- You will be asked to rest for 20-30 minutes after the test before leaving is allowed.
- If we consider your medical problem being severe, we may admit you to ward for further management.

Post-Procedure Follow-Up

- Your doctor may have explained to you the result of the test before you go home. If not, during subsequent follow-up, your doctor will explain to you the result and discuss with you the subsequent plan of management. You are advised to ask your close relatives to join the interview.

Risks

- The procedure carries certain risks, including cardiac arrhythmias, acute myocardial infarction or even cardiac arrest and death. It was reported that there was 1 in 2500 risk of myocardial infarction and death. (Reference 1)

Remarks

- It is hard to mention all the possible consequences if this procedure is refused.
- The list of complications is not exhaustive and other unforeseen complications may occasionally occur. The risk quoted is in general terms.
- Should a complication occur, another life-saving procedure or treatment may be required immediately.
- If there is further query concerning this procedure, please feel free to contact your nurse or your doctor.

Reference 1: