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MIBI CARDIAC TEST PATIENT INFORMATION

This pamphlet is meant to inform you and to put your mind at ease about the examination you are about to undergo. We trust that after reading this pamphlet, you will have a better understanding of what the examination entails.



WHAT IS A MIBI CARDIAC TEST?

It sounds much more complicated than it really is! Technetium MIBI is quite simply a radioactive substance which, after having been administered intravenously, is carried by the bloodstream and absorbed by the body's muscle cells. Since the heart primarily consists of muscular tissue, it also absorbs technetium MIBI.

Your heart muscle's absorption of MIBI will give us a true reflection of the blood supply it receives. The radioactivity radiated from the technetium in your heart muscle can be detected by a special instrument, the gamma camera. This enables us to see whether the blood supply to the heart muscle is normal or insufficient – crucial information for your doctor for planning future examinations and treatment.

RADIATION

You need not worry about the amount of radiation you will receive. We use very small doses of radioactivity and you will therefore not receive more radiation than during an ordinary CT-scan examination.

WHAT DOES THE EXAMINATION ENTAIL?

There are two phases to the examination:

- a) a stress test; and
- b) a passive/rest test (if needed).

a) The stress test

During this phase of the study we have to increase the heart's demand for blood via the heart muscle. Strain on the heart can be achieved by means of one of the following: exercise on a treadmill, or use of a special medication (Persantin® or Dobutamine).

Before the test you will be connected to an ECG monitor by means of electrodes being attached to the chest area. This will monitor your heart speed and ECG during the stress test. An intravenous drip will then be used as an easy route through which to administer the MIBI.

This test is usually done on a treadmill. You may have already used a treadmill during your stress ECG test. If not, we will give you sufficient time to get used to the machine before starting the test.

We usually continue until you have reached your personal target heart rate, which is determined by taking into account your age and fitness level. It is important that you try to reach this target rate. We will not push you too far, but please warn us if you get too tired to continue exercising or if you develop chest pains.

If you are unable to exercise (e.g. due to problems with your legs), we will intravenously administer an injection of Persantin® or Dobutamine. These agents widen the heart's blood vessels – the same effect achieved by exercise. Persantin® is administered over 4-5 minutes, while Dobutamine takes approximately 12 minutes. After the waiting period we will inject the MIBI and ask you to walk around for a few minutes, if possible, to ensure maximum absorption of the MIBI by your heart.

The MIBI is administered approximately one minute before stopping the treadmill exercise or receiving the Persantin® or Dobutamine injection. For purposes of the stress test it is important that you continue exercising for another minute after receiving the MIBI injection in order to promote the substance's absorption by the heart muscle.

You will then wait approximately 15-30 minutes for the MIBI to concentrate in the heart. During this time, you can have something to eat and drink. The gamma camera will then be used to take images of your heart.

When taking these images, we will ask you to lie on a special bed with your arms stretched above your head. You will be requested to keep very still in order to ensure optimal images.

b) The passive / rest test

During the passive test we will first determine your pulse speed and then administer a MIBI injection while you are at rest. You will not again receive Persantin® or Dobutamine. The injection will be followed by a waiting period of approximately 30-45 minutes to allow the heart to absorb the MIBI, whereafter heart images similar to those following the stress test will once again be taken.

Your test results will be posted to your doctor from whom you will be able to obtain them. Your doctor can also phone us for your results.

DOS AND DON'TS

1. Please have only a light breakfast before the test, since a more substantial meal will limit your ability to exercise. The recommended breakfast consists of porridge or cereal and fruit juice.
2. Please refrain from eating or drinking anything containing caffeine or related compounds (these include drinks such as tea, coffee, chocolate or chocolate-/cocoa-containing foodstuffs and certain medicines such as Grandpa®, Compral®, cough medicine) for at least 24 hours before the test. A special case is Nuelin®, which must be stopped for three days before the test. These all counteract the effect of Persantin®, and the test will therefore be of little benefit.
3. Bring along comfortable exercise clothes (and shoes) as well as your own towel.

4. For the strain test you will have to discontinue taking some of your medication three days before the test, e.g. beta-blocking agents (Inderal®, Tenormin®, Cavedilol®). Any nitrate medications (Isordil®, Elantan®) should also be stopped (1 day for Isordil; 2 days for Elantan®). Should you get severe chest pain during this time, use your Isordil as usual but call to inform us as we may have to reschedule your appointment. If in doubt about any preparation, please phone us well in advance. You are also advised to bring along all your current medications on the day of the study.
5. We would not want you to exercise if you are suffering from flu or have had it during the three weeks before the test. The same applies for any other infection. If this is the case, kindly inform us in advance so that we can change your appointment.
6. MIBI is very expensive and is ordered especially for you. It is therefore important that you keep your appointment. If you have any problems in this regard or any other questions, please contact us beforehand.
7. Arrive early rather than late. If you are late, you will cause a delay in the examinations of all the other patients booked after you.

FIND US

If you have any questions, please do not hesitate to ask.

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