

Percutaneous Liver Biopsy

Introduction

This leaflet tells you about the procedure known as percutaneous liver biopsy. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such a discussion.

Whether you are having the percutaneous biopsy as a planned or an emergency procedure, you should have sufficient explanation before you sign the consent form.

Radiologists are doctors specially trained to interpret the images and carry out more complex examinations. They are supported by Radiographers who are highly trained to carry out X-rays and other imaging procedures.

What is a percutaneous liver biopsy?

A needle biopsy is a way of taking a small piece of tissue out of your body, using only a tiny incision, so that it can be examined under a microscope by a Pathologist, an expert in making diagnoses from tissue samples. It is called a percutaneous biopsy because this biopsy is carried out through the skin.

Why do I need a percutaneous liver biopsy?

Other tests that you probably have had performed, such as blood tests or an ultrasound scan or CT scan, will have shown that there is an abnormality of your liver. From the scan, it is not always possible to say exactly what the

abnormality is due to, and the simplest way of finding out is by taking a tiny piece of it away for a Pathologist to examine.

What are the options or alternatives?

This is the simplest way to obtain tissue and make a diagnosis. The alternative would require an open operation.

Who has made the decision?

The Consultant in charge of your case. They will feel that this is the best thing to do. However, you will also have the opportunity for your opinion to be considered, and if, after discussion with your doctors, you do not want the procedure carried out, you can decide against it.

Who will be performing the percutaneous biopsy?

A specially trained doctor called a Radiologist or a specially trained practitioner. Radiologists and practitioners have special expertise in using X-ray and ultrasound scanning equipment, and also in interpreting the images produced. They will need to look at these images while carrying out the biopsy.

Radiographers and Radiology Nurses will be present in the room to assist during the procedure, they will introduce themselves at the start of the procedure.

Occasionally Radiologists in training will perform part or all of the procedure under the supervision of an experienced Consultant. Student Radiographers or Medical Students may also be present.

Where will the biopsy take place?

In the Medical Imaging Department.

How do I prepare for percutaneous biopsy?

- You may need to be an inpatient in the hospital, although many biopsies can be performed as and outpatient.
- You will have had some blood tests performed before the procedure to check that you do not have an increased risk of bleeding.
- You are asked not to eat for 4 hours prior to the procedure. You may drink a little water.
- You will need someone to drive you home and to look after you for 24 hours.
- You should be prepared to stay overnight if necessary.
- If you have any allergies or you have previously reacted to intravenous contrast medium, you must let the doctor know. Intravenous contrast medium is the injection we give you during some scans.
- If you are diabetic, please contact the Medical Imaging Department on **01392 402336 selecting option 2, in-patient enquiries, option 6** Interventional Radiology.
- If you normally take any medication to thin your blood (anticoagulation or antiplatelet drugs) then these may need to be stopped or altered. Please contact the Medical Imaging Department on 01392 402336 selecting option 2, in-patient enquiries and then option 6 for Interventional Radiology.

■ Examples of these medication include:

- **Warfarin, Phendione, or Acenocoumarol**
- **Clopidogrel, Ticagralor or Aspirin**
- **Non-steroidal anti-inflammatory drugs (NSAIDS)** (e.g Ibuprofen, Naproxen)
- **Dabigatran** (Pradaxa), **Rivaroxiban** (Xarelto), **Apixaban** (Eliquis), or **Edoxaban** (Lixiana)

■ Other medication should be taken as normal.

■ A pregnancy test may be performed on arrival.

What actually happens during a percutaneous biopsy?

You will lie on the X-ray, ultrasound or scanning table, in the position that the Radiologist has decided is most suitable. You may need to have a needle put into a vein in your arm, so that the Radiologist can give you a sedative or painkillers if required.

The Radiologist will keep everything sterile. Your skin will be cleaned with antiseptic, and you may have some of your body covered with a theatre towel. The Radiologist will use the ultrasound machine or occasionally the CT scanner to decide on the most suitable point for inserting the biopsy needle. Your skin will be then anaesthetised and the biopsy needle inserted into the abnormal tissue.

While the first part of the procedure may seem to take a while, actually doing the biopsy does not take very long at all and the needle may be in and out so quickly that you barely notice it.

Will it hurt?

Most biopsies do not hurt at all. When the local anaesthetic is injected, it will sting to start with, but this soon passes off and the skin and deeper tissues should then feel numb. Later, you may be aware of the needle passing into your body, but this is generally done so quickly, that it does not cause any discomfort at all.

There will be a nurse, or another member of clinical staff, standing next to you and looking after you. If the procedure does become painful for you, then they will be able to arrange for you to have more painkillers through the needle in your arm.

How long will it take?

Every patient's situation is different, and it is not always easy to predict how complex or how straightforward the procedure will be. It may be over in 30 minutes, although you will need to prepare to be in the hospital for most of the day.

What happens afterwards?

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure to make sure that there are no problems.

You will generally stay in bed for the next 4 hours, until you have recovered. After this period, if you are feeling well, you will be allowed to get up and may be allowed home providing you have someone to drive you home and to stay with you overnight and if you live less than 45 minutes from the hospital.

Rarely, an overnight stay can be needed if there are concerns over a complication, or if your pain is not well controlled.

What will happen to the results?

A report of the procedure will be recorded on your electronic patient record immediately for review by your Specialist.

Do not expect to get the result of the biopsy before you leave, as it takes approximately one week for the Pathologist to do all the necessary tests on the biopsy specimen. The pathology report will be sent to your Specialist.

What happens next?

All being well, you will be allowed home either on the same day, or perhaps the next. You are advised not to drive for 24 hours and to avoid strenuous exercise for 48 hours.

If you experience any of the following contact the department:

- You have continued bleeding from the wound.
- Your biopsy site becomes red and angry or you develop a fever.
- You develop Increasing pain.

If you experience severe pain / dizziness or fainting you are advised to seek urgent medical assistance.

Are there any risks or complications?

Percutaneous liver biopsy is a very safe procedure, but there are a few risks or complications that can arise, as with any medical treatment.

There is a risk of bleeding from the liver, though this is generally very slight. If the bleeding were to continue, then it is possible that you might need a blood transfusion. Extremely rarely, an operation or another radiological procedure is required to stop the bleeding.

Very rarely the biopsy may introduce infection, although this is rarely seen.

As the anaesthetic wears off you may experience an ache in your side, simple painkillers are usually enough to combat this. Sometimes referred pain is felt in the right shoulder tip.

Unfortunately, not all biopsies are successful. This may be because, despite taking every possible care, the piece of tissue which has actually been obtained is normal tissue rather than abnormal. Alternatively, although abnormal tissue has been obtained, it may not be enough for the Pathologist to make a definite diagnosis. The Radiologist performing your biopsy may be able to give you some idea as to the chance of obtaining a satisfactory sample.

Despite these possible complications, percutaneous biopsy is normally very safe, and is designed to save you from having a bigger procedure.

Finally....

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure, before you sign the consent form.

Contact us

If you found reading your leaflet difficult, you do not understand what it means for you or if you have any queries or concerns you can contact us on: **01392 402336** and we can talk it through or alternatively you can email us rduh.radiologyappointments@nhs.net

How to get to the Royal Devon & Exeter Hospital at Wonford

Please refer to the enclosed "Welcome to the Medical Imaging Department" leaflet and use the Trusts website for the latest information:

www.royaldevon.nhs.uk/our-sites

For more information on the Medical Imaging Department, please visit our website:

www.royaldevon.nhs.uk/services/radiology-x-ray-and-medical-imaging

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