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The Royal Liverpool
and Broadgreen
University Hospitals
NHS Trust

Patient information

Liver Cancer

Digestive Diseases Care Group

We have produced this information for you to read through at a time that is suitable for you. We know that you will have been given a lot of information and, over the next few days; you will have many questions you want answered. One of the best ways to do this is to keep a pen and piece of paper to hand, so you can write your questions down as they come to mind.

The doctor who has seen you today is

The specialist nurse who has seen you today is

The specialist nurse can be contacted on

Tel: 0151 706 2805

Text phone number: 18001 0151 706 2805

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We are happy to be contacted at any time. If unavailable, please leave a message and we will contact you as soon as possible, to deal with your questions.

Liver Cancer

Primary Liver Cancer

Primary liver cancers are cancers that start in the liver. The two main types are: Hepatoma, also called hepatocellular carcinoma (HCC) and biliary tree cancer, which includes cholangiocarcinoma (bile duct cancer) and gallbladder cancer.

Hepatoma (hepatocellular carcinoma, or HCC)

The main cause of HCC is cirrhosis of the liver, where the liver has become scarred as a result of damage over a long period of time. Any disease that causes cirrhosis of the liver can lead to a hepatoma, but certain causes of cirrhosis have a particularly strong link with HCC.

Having cirrhosis does not mean you will get hepatoma. Around two to four people out of a hundred with cirrhosis will go on to develop hepatoma every year.

What are the symptoms?

Often there are no symptoms in the early stages of liver cancer because the liver can function very well when only a portion of it is working. If you do notice any symptoms, they are usually vague and similar to symptoms for other liver conditions.

They may include:

- fatigue (tiredness) and weakness
- a general feeling of poor health
- loss of appetite
- feeling sick (nausea) and vomiting
- loss of weight
- pain or discomfort over the liver area (place your right hand over the lower right hand side of your ribs and it will just about cover the area of your liver)
- itchy skin
- an enlarged and tender liver (you may feel tender below your right ribs).
- dark urine/grey pale stools (faeces)
- loss of sex drive (libido)
- skin and eyes turning yellow (jaundice) often the first and sometimes the only sign of liver disease
- Swelling of the abdomen, which can be due to the growing cancer itself or a build up of fluid within the abdomen (ascites)
- fever with high temperatures and shivers
- vomiting blood
- dark black tarry stools (faeces).

Treatment

Primary and secondary cancer will require different approaches to treatment. The following treatments are used for primary liver cancer.

A number of treatment options are available. The aim of some treatments (surgery or liver transplant) is to get rid of the cancer to achieve a cure.

If this is not possible then treatment will aim to shrink the size of the cancer to relieve symptoms, delay progression or to make surgery possible. Treatments may be used on their own or in combination.

Unfortunately a cure is only possible in a minority of people because liver cancer produces few symptoms and many people are not diagnosed until it is well advanced.

The treatment you receive will depend on a number of factors, including:

- the exact position of the cancer in the liver - sometimes there are several areas
- the stage of the cancer (size and extent of the tumour, whether it has spread to other organs).
- your general health, in particular the general state of your liver function (many people with primary liver cancer have a damaged liver tests due to cirrhosis). If your liver is very fragile and not working properly, treatment can sometimes be more harmful to your liver and make you more unwell, which is why some treatments cannot always be offered.
- If your health is poor in other ways, e.g. poor lung, heart or kidney problems this may impact on what treatments you could be offered safely. If you are unfortunate enough to have had a cancer before or are being treated for another cancer at the same time as the liver cancer is diagnosed, this may also alter the treatments you could be offered.

Surgical Treatments

Surgery is the only treatment which offers a chance of a cure, but may not always be possible.

Whether you will be suitable for surgery will depend on a number of different factors, including:

- the size of the cancer and if it is contained in one part of the liver and no major blood vessels are involved
- if the cancer has spread beyond the liver
- whether the rest of your liver would be able to cope after an operation
- other health conditions which could hinder the operation or your recovery.

Resection Surgery

The most frequent form of liver surgery is known as resection, where the part of the liver affected by the cancer is cut away and removed. The liver will then re-grow this section.

Resection surgery is only suitable for those where the liver is functioning. If you have a hepatoma (HCC) caused by damage to the liver through cirrhosis, then resection is usually not possible. This is because your liver may be too damaged to recover after the operation. A liver transplant may be considered, but only a few people are suitable for this.

Liver surgery is a major operation and there are some risks such as infection, bleeding or bile leakage. There is a risk that the cancer may come back as it is not always possible to determine if cancer cells have spread into the blood stream. In around half (50%) of people who have had resection surgery, liver cancer does not reoccur within five years.

Liver Transplantation

A liver transplant may be considered if you have:

- a single tumour less than five centimetres in diameter
or
- up to five tumours, but all less than three centimetres in diameter
or
- a single tumour greater than five centimetres but less than seven centimetres if there has been no tumour progression for six months.

Both computer tomography (CT) and magnetic resonance imaging (MRI) scans are required to determine the number and size of the tumours, and measurements will be taken from whichever records the largest.

If you meet the criteria your consultant may recommend that you be assessed for a liver transplant. The liver transplant centre linked to Liverpool is at Queen Elizabeth Hospital in Birmingham. Your assessment would happen there.

You will need to be assessed by a transplant team to check that you are well enough to go through this major operation. Not all patients assessed get put on the waiting list because they may be considered too ill. Even if a patient is placed on the waiting list, up to 15% of patients die before the operation can be done.

Unfortunately, there is a shortage of donor livers. It may be some time before a suitable liver becomes available and you may need other treatments to slow the growth of the tumour in the meantime. Liver transplantation is not recommended for those with cholangiocarcinoma as the cancer often returns very quickly.

There are a number of treatments aimed at reducing the growth of the cancer if surgery is not an option. In some circumstances these may be effective at halting the cancer for several years.

Ablative Therapies

These use a needle to deliver substances directly into cancer cells to kill them, and work best in small tumours which cannot be operated on. The technique used is called microwave ablation.

Microwave Ablation

Microwave ablation is a way of destroying a cancer tumour using heat (microwaves). It is done by passing a needle into the tumour. This is done while the patient is asleep under a general anaesthetic. Patients may experience some tiredness, discomfort and nausea following treatment.

Microwave ablation is not suitable for all tumours, particularly if they are close to the gall bladder and biliary duct. An alternative is a technique called irreversible electroporation (IRE), this destroys the cancer cells by causing the cancer cells to split open.

Transarterial Chemoembolisation (TACE)

Transarterial Chemoembolisation involves giving an injection into the main artery of the liver of a substance containing tiny gel-like beads. This creates a seal that blocks the supply of blood to the tumour to stop it growing.

Chemoembolisation is a type of chemotherapy which directly targets a tumour. This reduces the side effects of using anti-cancer (chemotherapy) drugs directly in a patient's blood stream. In Chemoembolisation a drug (such as doxorubicin) is loaded onto microscopic glass beads.

This therapy is given under local anaesthetic and requires a stay of up to two days in hospital. New methods aimed at improving delivery of the drug in this way are emerging. Your medical advisor can provide more information about these treatments.

Biological Therapies

For those with advanced liver cancer but good liver function, and where other treatments are not suitable, Sorafenib has been shown to slow tumour growth, relieving symptoms and giving people some extra months.

NICE has issued guidance that Sorafenib should not be prescribed on the NHS as it is not considered to be cost effective.

However, if your cancer specialist believes you would benefit from a treatment not routinely available through the NHS they can apply to the local Primary Care Trust for exceptional funding. There are also proposals for other initiatives through which the Department of Health will cover the costs of cancer drugs, such as a Cancer Drugs Fund. Talk to your cancer specialist to see if any of these would be options for you.

You may also be able to receive Sorafenib as part of a clinical trial in combination with other therapies (see below).

Non-surgical Treatments for Biliary Cancer

Radioembolisation/Selective Internal Radiation Therapy

Selective Internal Radiation Therapy (SIRT)

Like chemoembolisation, this technique uses tiny beads to block the supply of blood to the cancer. The beads contain a radioactive substance called yttrium-90, which helps to kill the cells using radiation.

The beads are very small (around 30 micrometers in diameter). This may be an option if you have good liver function but surgery (liver resection) is not suitable.

Research is being undertaken to further evaluate the safety and effectiveness of the technique.

You may be able to take part in the research as part of a clinical trial. The technique is available through the NHS with the condition that uncertainties, benefits and risks are fully discussed with patients before they consent, and outcomes of treatment are monitored.

Clinical Trials

Doctors are always trying to find better ways of treating people. Your specialist may talk to you about the possibility of taking part in a clinical trial. This may involve treatment with new drugs or new ways of using drugs.

You do not have to take part in clinical trials and your care will not be affected if you do not. If you do take part, you may receive extra monitoring which may be beneficial to your treatment. The doctor involved in the research will give you specific information about any clinical trials.

The Royal Liverpool Hospital participates and leads on many clinical trials in liver cancer in the United Kingdom. You may be asked about joining in a clinical trial. You do not have to if you do not wish to, and the doctors and nurses will respect any decision made with regards to trials.

Looking after yourself

Diet Supplements

If you are finding it difficult to eat, there are plenty of dietary supplements available on prescription. Some are powders you sprinkle on your food and some are drinks that are complete meals in themselves. Sipping a supplement between meals throughout the day can really boost your calorie intake. Ask your doctor or dietitian for help.

Alcohol and Smoking

Alcohol is processed by your liver, and as a result, it can be dangerous for anyone with liver problems. Check with your doctor whether it is safe for you to drink alcohol, and if so, how much.

Smoking is dangerous to everyone's health. People with liver disease are more vulnerable to infection and to poor health overall, so smoking or exposure to passive smoking is not advisable.

Ascites

Ascites is a build up of fluid in the lower tummy area (abdomen).

There are several possible reasons for ascites including:

- cancer cells in the lining of the abdomen cause fluid to leak out into the abdomen
- pressure develops in veins around the liver because the liver is not working properly; this causes fluid to leak out into the abdomen.

Symptoms of ascites such as a large uncomfortable abdomen, can be relieved by taking water tablets (diuretics) or by inserting a temporary tube into the abdomen to drain the fluid.

Unfortunately, despite both of these treatments ascites may come back again.

Pain

Pain may develop in the abdomen and sometimes in the back.

If pain affects you, there are a range of painkillers you can try. You will probably be started on some simple painkillers such as paracetamol or co-dydramol; some people do not need anything stronger than these. However, if these are not effective then you may be offered a morphine based painkiller such as morphine sulphate tablets (MST).

Do not worry about becoming addicted to morphine. Morphine taken to relieve pain works in a different way than morphine for 'recreation'.

Morphine-like drugs can also be given as a patch, similar to nicotine patches. This way of delivering painkillers may be used for patients who are not able to take tablets.

Complementary and Alternative Medicines

Many complementary and alternative medicines are available that are suggested to ease the symptoms of liver disease. Most of these are processed by the liver, so can be toxic to people with liver problems. Some can damage the liver and make you more severely ill. At present, healthcare professionals are not clear on the role and place of some therapies in managing liver disease. More research needs to be done on the use of such therapies. Many products are not licensed as medicine and there is therefore no regulation of the product, which means you cannot be sure how much of the active ingredient you are getting, or how pure it is. It is wise to be cautious about the claims made for herbal remedies, particularly those advertised on the internet, as they can offer false hope.

It is a good idea to discuss the use of these remedies your doctor.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

The specialist nurse can be contacted on

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British Liver Trust

<https://www.britishlivertrust.org.uk/>

NHS Choices

<http://www.nhs.uk/conditions/cancer-of-the-liver/>

Author: Digestive Diseases Care Group
Review date: February 2022

All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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