


Understanding Secondary Brain Tumour



What is a secondary brain tumour?

A secondary or metastatic brain tumour is defined as a tumour that has spread to the brain from a cancer in another part of the body. This is different to a primary brain tumour which is a tumour that first started within the brain.

How do tumours spread to the brain?

Cancer cells can break away from the primary tumour and travel through the blood or through the lymphatic system. The lymphatic system is a complex system made up of a network of lymph nodes (or lymph glands) that are found all over the body. The lymph nodes are connected by tiny lymphatic vessels.

Some types of cancer are more likely to spread to the brain. The most likely types to spread to the brain are cancers of the lung, breast, bowel, colon, kidney (renal) and skin (malignant melanoma). It is important to know if the tumour is a primary or secondary brain tumour as the two are treated differently. It's usually possible to know if a tumour within the brain is a secondary rather than a new primary cancer of the brain itself, because there is often a history of cancer elsewhere in the body, even from a long time ago.

When the rest of your body is scanned, secondaries may also be found in other places – for example, in the liver or in the bones. If there is more than one tumour in the brain, it is likely that these are secondary tumour growths, because cancers which start off in

the brain usually remain and enlarge in one place. If people have more than one secondary tumour in the brain it is sometimes called multiple brain secondaries or metastases.

Occasionally, if there is only one tumour in the brain (a solitary brain tumour) and if there has never been a diagnosis of cancer elsewhere in the body, it may be difficult to tell whether the growth is a primary or a secondary one. In such situations, a sample of cells from the tumour (biopsy) will need to be taken and you will be referred to a neurosurgeon for this. When the cells from the biopsy are examined under a microscope, they may look like the cells from a cancer in another part of the body. For example, if a lung cancer has spread to the brain, the affected cells would look like lung cells rather than brain cells.

Symptoms

Some of the symptoms of a secondary brain tumour are similar to those of a primary brain tumour.

The most common symptoms are headaches, weakness in areas of the body, changes in behaviour, fits (seizures), symptoms of raised pressure in the brain (raised intracranial pressure), feeling or being sick, confusion and listlessness.

A doctor may suspect a metastatic brain tumour if there has been a previous diagnosis of cancer and you have any of the above symptoms. Sometimes, secondaries or metastases are found before the primary cancer has been diagnosed. In some cases, even after numerous tests, it may not be possible to find the original cancer. In this situation, the tumour is known as a secondary brain tumour from an unknown primary.

Diagnosis

To diagnose a secondary brain tumour, the doctor will examine you thoroughly.

A CT scan or an MRI scan can sometimes show the difference between secondary and primary tumours.

CT (computerised tomography) scan

A CT scan is a painless scan that takes from 10-30 minutes and uses of x-rays to build up a three-dimensional picture of the inside of the body. CT scans will be very unlikely to harm you and will not harm anyone you come into contact with, as they only use a small amount of radiation. You will be asked not to eat or drink for at least four hours before the scan.

To allow particular areas to be seen more clearly, most people who have a CT scan are given a drink or injection. The injection may make you feel hot all over. It is very important, before having this, to tell the person doing this test if you are allergic to iodine or have asthma.

MRI (magnetic resonance imaging) scan

This is similar to a CT scan, but uses a strong magnet instead of x-rays. The scan will last for about 30 minutes and during the scan you will be asked to lie very still on a couch inside a long tube. It is painless but loud which can make the scan uncomfortable, and some people feel a bit claustrophobic during the scan. You will be given earplugs or headphones for the noise.

Some people may be given an injection of dye into a vein in the arm, but this usually does not cause any discomfort.

Biopsy

Occasionally it is necessary to take a sample of cells from the tumour (biopsy) to confirm the diagnosis. The biopsy will then be looked at under a microscope. The biopsy operation is done by a neurosurgeon. Your doctor will discuss with you whether this is necessary in your case, and exactly what the operation involves.

Other tests

Your doctor will look into the back of your eyes, using an ophthalmoscope. They can see if the nerve at the back of the eye is swollen. This happens if the pressure inside the head increases (as a result of the secondaries growing or associated swelling of the brain). The doctor may also do an examination to test the power and feeling in your arms and legs, and will test your reflexes.

Consent

It is important before you have any treatment, that your doctor explains to you what the treatment involves and the aims of the treatment, giving you full information of your treatment. You will usually be asked to sign a consent form saying that you give your permission for the hospital staff to give you the treatment. No medical treatment can be given without your consent.

Treatment

Being told that you have secondary cancer in the brain will be a tremendous shock. It is important to discuss any questions, fears and treatment options with your doctor. It is not usually possible to get rid of a secondary brain tumour completely, but treatment

can sometimes shrink the tumour, slow its growth and control symptoms.

Benefits and disadvantages of treatment

The potential benefits of treatment will vary for each person. If you have been offered treatment that aims to cure your cancer, deciding whether to have the treatment may not be difficult. However, if a cure is not possible and the treatment is to control the cancer for a period of time, it may be more difficult to decide whether to go ahead.

If you are finding it difficult to decide whether to go ahead with your treatment when it has been first explained to you, you are entitled to ask for more time to think it through or request a second opinion. You are entitled not to choose the treatment offered. The staff can then explain what may happen if you do not have your treatment. A reason isn't a necessity for not wanting to have treatment, however, so you receive the best advice; it would be helpful to let the staff know your concerns.

Treatment Options

The Gamma Knife (Stereotactic Radiosurgery)

Stereotactic Radiosurgery is delivered using a machine called the Gamma Knife. It can be given as a single dose of focused treatment, in which nearly 200 beams of radiotherapy are aimed at the tumour(s) in a single session. Unfortunately



not all the patients are suitable for this. It is most useful in either patients who have minimal or well controlled disease outside the head. Lesions are ideally small and few in number. For more detailed information about this treatment, ask your doctor, nurse or patient support assistant for a patient guide.

Steroids

These are generally given to help to control symptoms. They can temporarily improve headaches, weakness of the limbs, and feelings of sickness.

Whole-brain Radiotherapy

Whole-brain Radiotherapy is the most common treatment. High-energy x-rays are used to treat the whole brain. This is often used when there are many secondaries in the brain or as a way of delaying the development of new ones.

Chemotherapy

Chemotherapy is the use of anti-cancer (cytotoxic) drugs to destroy cancer cells. If chemotherapy is given, it has to be a type that is able to cross the membranes that protect the brain and spinal cord (the blood brain barrier). In certain cancers which have spread to the brain, hormonal therapy may be used.

Surgery

In some cases, especially if the scans show that there is only one secondary tumour in the brain; it may be possible to remove it by surgery. Surgery is also particularly useful for large secondaries causing pressure symptoms such as headache. You will be referred to a neurosurgeon to see whether it is possible to remove it. Following the operation, radiotherapy treatment may be given to reduce the chances of the tumour returning.

Your feelings

You may find the idea of secondary cancer affecting the brain extremely frightening and upsetting. It is natural to worry about how you will be affected. You may experience many different emotions, including anxiety and fear. These are all normal reactions, and are part of the process many people go through in trying to come to terms with their condition.

Many people find it helpful to talk things over with their doctor or nurse, or one of our patient support assistants. Close friends and family members can also offer support.

Additional information

Driving

The Drivers and Vehicle Licensing Association (DVLA) will not allow you to drive for between 1–2 years after diagnosis of a secondary brain tumour, depending upon the grade of the tumour. If you have also had an epileptic fit the DVLA will not allow you to drive for a year after your last fit.

The hospital will not contact the DVLA, but it is your responsibility to do so and your doctor will advise you how to do this.

References

This section has been compiled using information from a number of reliable sources, including:

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A page for your notes



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