Post Operative Course

During the first few post operative days you will be closely observed and monitored. You will probably have tight stockings (TEDS) to wear in order to decrease the risk of venous clots in your legs and you may well have a drain coming from the wound and possibly a urinary catheter. It is likely that you will still have to take steroids for some time after the surgery but the dose may be gradually reduced as time progresses.

After a few days you will be encouraged to get up and about, and then the drain, catheter and wound clips will be removed.

Long Term Prognosis

The long term prognosis after a craniotomy to remove or debulk a tumour depends mainly on the exact biological nature of the tumour (its 'histology'). At operation the tumour, or pieces (biopsies) of it will be sent to the pathology department. There, various tests will be done that will tell us exactly what sort of tumour it is; benign or malignant, fast or slow growing etc. These tests usually take about a week and as soon as we have an answer we will discuss the result and its implications with you, and if you wish, your family.

If any further treatment is needed, such as radio or chemotherapy, it is likely that you will be referred to an oncologist to discuss and arrange this. You may also be seen by one of our specialist nurses from the tumour service who can give advice and support in a number of areas.

Follow Up

You will be followed up regularly in the neurosurgical clinic to ensure that there are no post operative problems. Furthermore, if any other treatment is required you will be seen in the oncology clinic as well, and we liaise very closely with our oncological colleagues in the treatment of brain tumours.

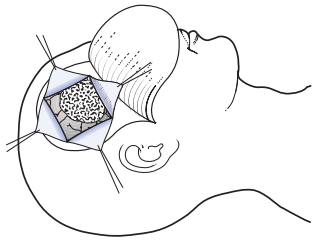
Driving

One of the consequences of having a craniotomy is that you will have a slightly increased risk of having an epileptic seizure (fit) for some months afterwards (regardless of whether you have had seizures as a consequence of the tumour itself). For this reason you are **not** allowed to drive after a craniotomy until you have cleared it with the DVLA. To do this you must contact them and fill in a questionnaire about your recent illness and operation; in particular whether you have had any seizures or not and whether you are taking anti-convulsants (anti seizure medicine) as a consequence of this. They will then send a further questionnaire to us in order to confirm your medical details. It is likely that your driving licence will be rescinded for a period of time ranging from some months to some years; essentially until the DVLA are happy that you have an insignificant risk of having a seizure whilst driving.

The DVLA's address is;
Driver & Vehicle Licensing Centre
Driver's Medical Branch
Swansea
SA99 ITU
Fax. 01792 761100

Craniotomy for Tumour

A Patient's Guide



Mr R D Ashpole FRCS
Consultant Neurosurgeon

www.neurosurgeon.co.uk

Introduction

This leaflet is intended to reinforce the things that you have already been told about your forthcoming operation.

Anatomy

The brain normally sits within the skull, which is essentially a closed bony box. When you develop any type of tumour or mass associated with the brain it takes up space within the skull, pressing on and displacing the surrounding brain. This "space occupation" has a number of effects on the brain, which can lead to a variety of symptoms depending on which parts of the brain are affected.

i. Loss of function of the part of the body operated by that part of the brain; such as weakness of an arm or leg, or part of the face.

ii Difficulty with speech, language, reading, or vision.

iii Irritation of the brain can lead to epileptic seizures (fits.)

iv An increase in the pressure inside the skull (so called intra-cranial pressure) can result in symptoms of headache, nausea and vomiting.

Fig. 1 shows a normal brain inside the skull and Fig. 2 shows how a tumour has displaced and distorted the brain. Often the brain directly adjacent to a tumour may become swollen, further exacerbating the symptoms.

Fig. 1

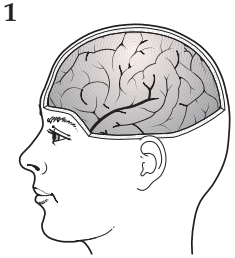
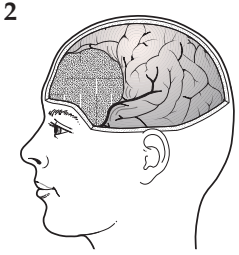


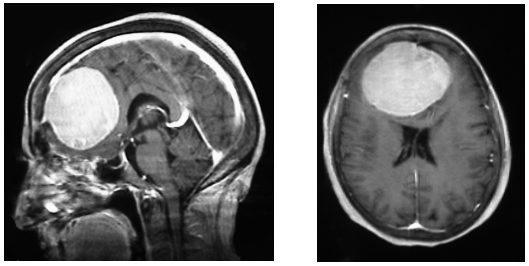
Fig. 2



Diagnosis

This is normally made using either a CT (computerized tomogram) or an MRI (magnetic resonance image) scan (Fig. 3). Depending on the site, size and features of the tumour, as well as the symptoms with which you present, you may then need to proceed to surgical removal of it. This will obviously entail opening the skull in order to gain access.

Fig. 3



Craniotomy

This is one of the commonest major neurosurgical procedures and essentially involves gaining access to structures inside the skull. Prior to the operation you may be given some sterioids which help to derease any swelling around the tumour, and for certain types of tumour you may also undergo cerebral angiography (X-rays of the brain's blood vessels) so that the surgeon can see which blood vessels supply the tumour and which supply the brain. For some types of tumour it may be possible to block off (embolise) some of the tumour's supplying blood vessels at the time of the angiography in order to make the tumour less vascular and thus the operation less risky.

Then, under a general anaesthetic (so you are asleep), an area of the scalp will be shaved of hair and an incision made. A scalp flap will then be turned back. Following this a ''trapdoor'' will be cut in the bone using a neurosurgical drill and saw. The exact site of this bony opening will obviously depend on the precise location of the tumour. Once insde the skull the mebrane surrounding the brain (the dura) can be opened to expose the brain itself (Figs 4,5,6 & 7)

Fig. 4

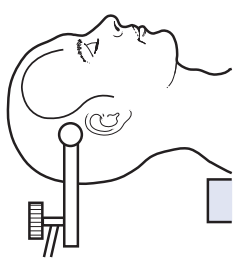
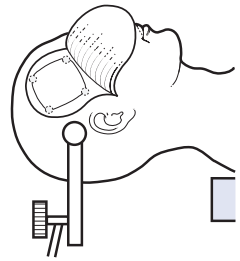


Fig. 5



The tumour can then be removed using a variety of surgical instruments and tools. Often the aim is to remove all the tumour but sometimes, due to the tumour's position or other involved structures only part of it may be removed (a debulking).

Fig. 6

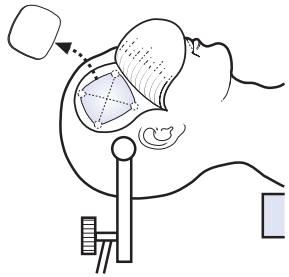
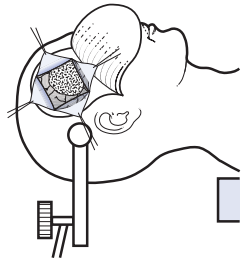


Fig. 7



At the end of the procedure the membrane over the brain (dura) is closed and the bony trapdoor or flap is replaced and fixed in place. Finally the scalp is stitched or clipped together.

Once awake you will be returned to the neurosurgical ward for regular observations and monitoring. Sometimes it may be necessary to spend some time on the intensive care or high dependency ward post operatively before returning to the neurosurgical ward.