Stereotactic Surgery

A Patient's Guide



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Introduction

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

Stereotactic Surgery

This is a way of very accurately guiding a surgeon to a lesion (abnormality) inside your head. This may be in order to take a small piece (biopsy) of the lesion to find out its exact nature; or to enable us to try and remove it completely. A CT scan is used to calculate the exact position of the lesion, and a frame is then used to accurately guide a surgical probe directly to it. This enables the operation to be done through the smallest incision possible. It is therefore a type of minimally invasive procedure.

Stereotactic Biopsy

Under a general anaesthetic (so you are asleep) a metal frame is carefully clipped to your head (Fig. 1). You then undergo a CT scan (whilst still asleep) with this frame in place and the exact position of the lesion is calculated by computer.

Fig. 1



You are then transferred (still asleep and with the frame clipped on) to the operating theatre, where the rest of the frame and biopsy equipment is attached. Using the calculated position of the lesion a small skin incision is made and a single hole is drilled in the skull and a surgical biopsy probe directed exactly to the lesion (Fig. 2). Pieces of the lesion (biopsies) are taken and sent to the laboratory for analysis.

After the samples have been taken the frame is removed and the small skin incision is sutured.

Fig. 2



Stereotactic Craniotomy

This is very similar to the procedure for a biopsy but a slightly larger hole is made in the skull (craniotomy) to enable the surgeon to remove the lesion completely (Fig. 3).

Once the lesion has been removed the flap of bone is replaced and the skin incision closed.

Fig. 3



The Hospital Stay

This type of operation often enables people to get home sooner than if they'd had a bigger incision and a larger craniotomy. Obviously the time spent in hospital depends a lot on the exact nature of the underlying lesion being operated upon, but people will often be able to go home after only a few days.

Further treatment

The necessity for, and type of, any further treatment depends entirely on the exact nature of the lesion being treated.

Follow up

Following either a stereotactic biopsy or craniotomy you will be followed up as an outpatient. Initially this will be after a few weeks, and then at longer intervals until your recovery is complete.

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