

Spheno-Orbital Meningioma

An information guide



Spheno-Orbital Meningioma

A spheno-orbital meningioma is a benign tumour arising from the linings of the brain (meninges) but with a particular propensity to involve the bone between the brain cavity and the eye socket.

It can also have components within the brain cavity and the orbit (a bony cone shaped socket that contains the eyeball, the muscles that move the eye and the nerve of vision).

Due to the area in which they grow, they require the skills brought by a multi-disciplinary team of specialists.

This includes ophthalmologists (surgeons who have a specialist interest in the eye), neurosurgeons (surgeons who have a specialist interest in the brain, specifically the skull base) and sometimes clinical oncologists (doctors who specialise in radiotherapy) as well as various supporting specialists including neuroradiologists (doctors who have a specialist interest in looking at brain scans), optometrists (healthcare specialists trained to examine the eyes) and specialist nurses (nurses who work alongside the ophthalmologists or neurosurgeons who are there to support you and be your key contact).

The different disciplines will meet regularly in an MDT (multidisciplinary team meeting) to discuss your case in detail and make an appropriate plan prior to seeing you in clinic.

Most people with a spheno-orbital meningioma will also be seen in our multi-disciplinary orbital-skull base clinic at Manchester Royal Eye Hospital.

Symptoms

Many patients who are diagnosed with a sphenoidal meningioma present with symptoms related to the eye including visual deterioration, proptosis of the eye (where the eye looks and feels like it is “bulging”) and sometimes impairment of eye movement which can lead to double vision.

A small number of patients may notice that the eye lid is closed or partly closed on the affected side.

These symptoms are either due to the gradual displacement of the eye or interference in the function of nerves at the back of the eye due to gradual growth of the tumour.

The tumour can also affect the surrounding bone and, therefore, some patients will get discomfort around the eye related to this.

Most patients will not have any symptoms related to the brain itself though headaches are not uncommon.

Some of these tumours will be found by accident when a scan is performed for an unrelated reason.

Investigations needed

As part of your diagnosis and subsequent investigation, you will require the following:

- **Scans** - your diagnosis will have been made following either a CT or MR scan. Both these types of scans are very important in accurately characterising your meningioma, and if you have only had one or the other, arrangements will be made for a further scan. The MR scan gives more detail about the tumour within the eye socket and brain cavity, whereas the CT defines how much of the bone of the skull base is involved
- **Visual assessment** - You will also need various eye tests to assess the function of the eye. This will include visual acuity (sharpness of vision), a full visual field test, colour vision, pupil response and movement of the eye. The team will also look at any cosmetic changes related to bulging of the eye (proptosis) or drooping of the eyelid (ptosis).

Treatment

Treatment of a spheno-orbital meningioma will vary according to individual circumstances such as tumour size, symptoms, and your general health.

All decisions will be made with you in a clinic although the team may have a particular recommendation based upon the various factors individual to you.

Surgery

Surgery for sphenoidal meningioma requires careful planning and a multidisciplinary approach with both ophthalmologists and neurosurgeons carrying out the surgery.

This is often the first mode of management for sphenoidal meningioma. The benefit of surgery to the tumour is that it aims to take the pressure off the eye and the nerves behind the eye.

If there is a component within the brain, it will also remove this part. The aim of surgery is to preserve good visual and neurological function, and it is usually very successful in this regard. If there is visual loss prior to surgery, this can recover following an operation although the degree of recovery is unpredictable.

The surgical approach will rely upon different factors but is likely to involve a craniotomy (a window of the skull being removed to access the skull base cavity).

An incision is usually made in the hairline from the top of the ear to the centre of the hairline running along the forehead. That way, any incision will be totally hidden in the hairline and, though we shave a small area of hair for the surgery, this will grow back and disguise the scar eventually.

The team will work cautiously to take the tumour away. It is not always possible to remove the entire tumour due to the risk of damaging the surrounding structures.

If necessary, the team will elect to leave small areas of tumour behind to try and reduce those risks. Despite this, there are potential risks that this type of surgery poses.

These include risk of damage to the eyeball, visual deterioration, reduced movement of the eyeball (with double vision), full or partial eyelid closure on the tumour side, damage to the tear gland causing a dry eye, changes to pupil size and reaction to light, or changes to feeling around the eye and forehead area.

These are all relatively low risk, and your specific risks will be discussed with you in clinic. There are also other risks that come with any neurosurgical procedure including risk of a stroke, bleed within the brain, infection within the brain or linings of the brain, wound infection, seizures, CSF leak (cerebro-spinal fluid) and a very small risk to life. These are also very low risk and can be discussed in greater detail in clinic if needed.

There are small risks associated with the anaesthetic and being less mobile after surgery including heart attack, stroke, pulmonary embolus (blood clot on lungs) and chest infection. Again, the risks of these are usually very low but will be discussed with you individually.

Patients are usually admitted on the day of surgery and taken to theatre quite early in the morning.

Once you wake from surgery you will notice there are lots of tubes, lines and monitoring equipment attached to you.

This does not mean that something has gone wrong, and, in fact, we monitor all patients in the same way after craniotomy.

You will spend at least 1 night on a high dependency ward being closely monitored in terms of your brain function.

We usually take most of the monitoring lines, drips and tubes out the day after surgery as you no longer require the higher level of care. We will encourage you to get out of bed and mobilise as early as possible.

Most patients are awake enough to have a conversation, eat and drink, sit out and have visitors on day one after surgery but it is very normal to be quite tired and to require lots of rest. Therefore we recommend minimal visitors and activity in the first 2-3 days.

You will most likely have a bandage around the head which can be tight. Headache is to be expected but is usually tolerable and the ward staff are used to looking after similar patients and managing any pain. The wound may feel tight and tender initially.

It is very common to have swelling and bruising around the eye, forehead, and temple area. This is often fluid filled and puffy. It can cause the eye to close and may feel tender. We can offer cold compresses and medication to help with this and it usually settles in the first few days. The eye can bulge a little more than usual and we may need to offer eye drops to lubricate the eye.

The team will be assessing your vision and the health of your eye on a regular basis. It is important that you mention any changes in your vision or symptoms. You may need some eye drops initially.

You will stay in hospital for around 4-7 days though this can be variable depending on your symptoms and recovery.

If your wound has any sutures or clips to be removed, this will be around day 7-10. If you are home, the district nurses or practice nurse local to you can do this.

The specialist nurses will see you before you are discharged to give you a separate advice sheet on managing your wound and spotting signs of a post-operative issue such as a wound infection.

Most patients are self-caring when they are discharged but it is advisable to have someone staying with you for a few days after and you will likely take some 2-3 months to feel like you are back to your pre-operative self. Again, this is variable, and you can discuss any specific concerns about your recovery with the specialist nurses.

We suggest you keep activity light and steady in the first 6 weeks, avoiding any heavy lifting, bending, or straining. Gentle walks are ideal with periods of rest throughout the day.

You may need the input of the occupational therapists if there is a new visual change or there are any difficulties with day-to-day function. This will be discussed with you if needed.

The majority of patients will be required to take 6 months off driving though for some, it can be longer and may depend upon your vision. We advise you contact the DVLA who, in turn, will contact the surgeon to determine a safe time period to return to driving.

If you work, we recommend at least 3 months off work. Again, this is variable, and some patients are well enough to go back slightly sooner and others needing much longer off work.

Radiotherapy

Some patients with spheo-orbital meningioma will require radiotherapy. This can be given as a primary treatment (first line of treatment) or in addition to previous surgery. There are many factors that will influence if you need radiotherapy and whether this will be recommended instead of or after surgery. This will be discussed with you.

Most patients who have had surgery for their tumour will not need to have radiotherapy. If radiotherapy is proposed, you will be referred to one of our MDT colleagues, a clinical oncologist. This does not mean this is a cancer but that they deliver radiotherapy to treat the tumour.

Radiotherapy comes in various forms and the best way of delivering radiotherapy and the type of radiotherapy you receive, will be discussed with you based upon your individual case and the discussions that the MDT have held.

It is likely that radiotherapy would be carried out as an outpatient over several weeks, with visits to the Christie Hospital or the Christie@Salford unit, on a daily basis, Monday- Friday. Again, this will be discussed with you in detail.

In order to plan the radiotherapy, you will need to have an initial discussion with the oncologist to discuss the risks and benefits of the treatment.

Risks are similar to that of surgery with regards the nerves and muscles around the eye. As this is not an open operation, there is no upfront risk of stroke or infection but there are some risks for both the immediate period and in the longer term.

These risks are very low but could include potential changes to vision, movement of the eyeball (causing double vision), swelling

around the area or sensory changes in the area. Each potential will be discussed on an individual basis.

There are some longer terms risks of any form of radiotherapy. These risks are very low but include increased risk of stroke, formation of other tumours in the area where radiotherapy has been delivered, delayed visual changes and a very small risk of malignant change within the tumour.

This will all be discussed with you in clinic if radiotherapy is felt to be necessary and the benefits are felt to be much higher than any of the small potential risks.

The majority of patients will feel fatigued throughout and in the early period after radiotherapy treatment. This can persist for some weeks but is usually manageable.

Some patients experience other side effects such as headache or nausea. These symptoms are usually tolerable and can be managed with medication.

The treatment is generally tolerated very well, and any side effects are often short lived.

Driving will need to be discussed on an individual basis and may require a period off driving. Please speak to the team if you drive or contact the DVLA.

Watch and wait

Some patients will not have upfront treatment and will be offered surveillance through periodic scans and visual assessments.

This is not appropriate for the majority of patients and will be decided based upon several factors including general health, visual status, and your wishes.

Follow up

All patients will require follow up regardless of whether they are treated or not. Periodic scans, visual assessments and clinic reviews will be necessary from time to time over many years.

Following treatment, scans will be carried out to monitor for signs of regrowth of the tumour although this is unlikely. This will be discussed with you at your clinic reviews.

Support

We understand that this can be a very anxious time. We are here to support you and advise you.

Please feel free to contact the team as needed.

Contact details are as follows:

Skull Base Specialist Nurses

0161 206 2303

0161 206 5090

Secretary to Mr. Rutherford

0161 206 0119

Secretary to Professor King

0161 206 0631

Prof Pathmanaban

0161 206 5830

Advanced Oculoplastic Nurse Practitioner Manchester Royal Eye Hospital

0161 276 1234

ask switchboard to bleep 5235

Secretary to Mr. Atallah, Mr. Cannon, Mr. Dharmasena & Mr. Laybourne

Manchester Royal Eye Hospital

0161 276 5557

0161 276 5569

Support Groups

Meningioma UK

01787 374084

enquiries@meningioma.uk

www.meningioma.uk/facts

BASIC (Brain and spinal injuries charity)

BASIC can offer support to patients and relatives undergoing treatment for meningioma

0870 7500 000

www.basiccharity.org.uk

554 Eccles New Road

Salford, M5 5AP

There are also various support groups and charities that will support patients with any visual difficulties.

Please ask the Specialist Nurses for more information if needed.

Notes

Notes

Copies of this leaflet are available in other formats (e.g. large print or easy read) upon request. Alternative formats may also be available via:

 www.northerncarealliance.nhs.uk

In accordance with the Equality Act we will make reasonable adjustments to enable individuals with disabilities to access our services. Please contact the service or clinic you are attending by phone or email to discuss your requirements.

If you need this leaflet in a language other than English please contact the NCA Central Interpretation Booking Office via the following details:

 **0161 627 8770** or Email:  Interpretation@nca.nhs.uk

 **07966 003 540** Mobile Text

 **Northern Care Alliance NHS Foundation Trust**

Mayo Building,
Salford Royal,
Stott Lane, Salford, M6 8HD

 Main switchboard: **Salford - 0161 789 7373**

 Main switchboard: **Bury, Oldham & Rochdale - 0161 624 0420**

 www.northerncarealliance.nhs.uk

 [@NCAAlliance_NHS](https://twitter.com/NCAAlliance_NHS)

 www.facebook.com/NorthernCareAllianceNHS

 www.linkedin.com/company/northern-care-alliance-nhs-foundation-trust

Date of publication: **Sep 2022**

Date of review: **August 2024**

Date of next review: **August 2026**

Ref: **PI_MCCN_1471**

© Northern Care Alliance NHS Foundation Trust