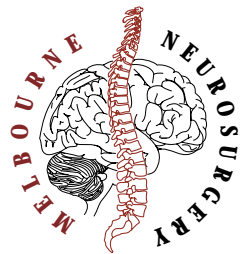


INFORMATION LEAFLET

BRAIN ABSCESS



WHAT IS A BRAIN ABSCESS ?

This is an infection like the infection for a boil or infected pimple but it occurs in the brain. Because the brain is soft it grows differently to normal infection and because the brain is normally protected from antibiotics they can be difficult to treat.

HOW DO THEY OCCUR ?

Normally bacteria in the blood are cleaned up by the bodies own defences. Occasionally some get into the blood vessels of the brain and infect the wall of the blood vessel. This then spreads into the surrounding brain.

WHERE DO THE BACTERIA COME FROM ?

The common places are:

Blood stream infection from:

- Urine Infection
- Infected Teeth
- Lung infection
- Bone infection

Direct infection:

- Sinusitis
- Infected skull fracture or trauma
- Surgery

Who gets a brain abscess ?

People who are sick or run down have a higher chance.
If you are taking immunosuppressive drugs.
If you have chronic respiratory disease.

WHAT PROBLEMS CAN THEY CAUSE ?

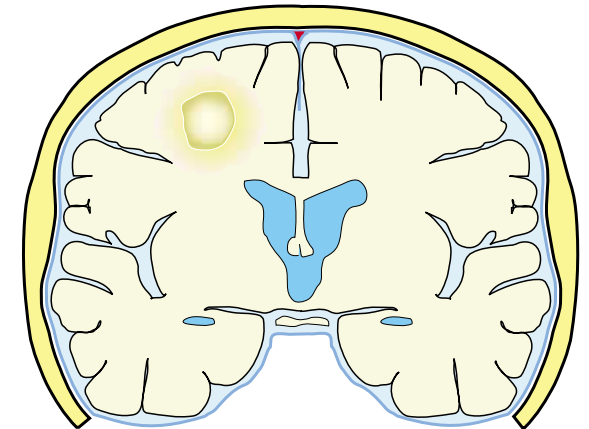
They may not produce headache until late in their course. The first symptoms may be from the pressure or swelling that they cause on/in the surrounding brain. The infection can destroy the brain that they involve. You may already be in hospital because of the infection that caused the brain abscess and you may have symptoms from this such as fever etc.

The commonest symptoms are:

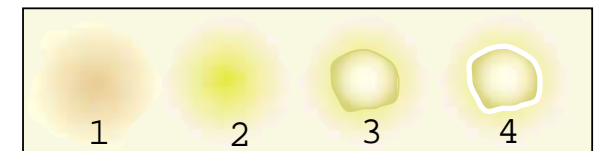
Epilepsy(seizure) As the infection irritates the brain it may cause it to fit.

Stroke symptoms As the pressure builds up and pushes on the surrounding brain it may stop working. If the infection involves an important part of the brain it may destroy it and produce symptoms like a stroke. Swelling in the surrounding brain may produce the same effect.

Headache This usually occurs later on and is from the increasing size in the abscess or the swelling from the infection. It may be associated with vomiting and if the abscess gets large enough then it may make you sleepy.



**Slice of brain showing brain abscess
in its common place just below the surface**



**Progressive changes
in the formation of a brain abscess**

What happens in the brain ?

1. Initially a low grade infection develops. This produces some redness in the brain due to a little inflammation. This is called CEREBRITIS
2. As the infection starts to take hold the brain begins to soften.
3. The softening gets worse as does the inflammation around the infection.
4. The bodies defences try to wall off the infection and a white capsule starts to develop around the infection.

HOW IS IT DIAGNOSED ?

Your doctor will usually make the diagnosis from the symptoms that you have and special tests

BLOOD TESTS

These are to look for infection in the blood and usually consist of a culture of the blood as well as tests to look for special cells to show that an infection is present.

CAT SCAN

This is usually next. This is a computerised X ray of your brain that may show a bright area in the brain after a special contrast is injected into the blood stream. It may show nothing but swelling(black areas) in the early stages.

M.R.I. (Magnetic Resonance Imaging)

This may be used if the cat scan is non conclusive. It produces pictures like the CAT scan but they are generated using a magnetic field and not using radiation.

LUMBAR PUNCTURE

This involves taking some fluid from around the brain by aspirating it as it washes around the spinal cord. This may not be conclusive.

ASPIRATION OF THE ABSCESS

This is the best way to confirm the diagnosis and involves either an open operation on the abscess or a procedure called a STEREOTACTIC BIOPSY(see Leaflet)

HOW IS THIS TREATED ?

This depends on:

- How bad your symptoms are
- How far the infection has progressed
- How big the abscess is
- The location of the abscess

How bad your symptoms are

If your symptoms are not too bad and the abscess is small then a biopsy and antibiotics is all that is required. If the infection is producing serious effects then we usually decompress or remove the abscess to hurry the cure.

How far the infection has progressed

If the infection is in the early stages then antibiotics will usually work. If the infection is in the late stage and a thick capsule has developed then surgery may be required to remove the abscess.(CRANIOTOMY AND ABSCESS EXCISION)

How big the abscess is

If the abscess is small it may respond to antibiotic treatment. But if it is large it may need to be reduced in size by having its contents drained to allow the antibiotics to work and take away the pressure and inflammation.

The location of the abscess

If the infection is in a non important part of the brain then we may elect to remove the abscess to hurry up the cure.

IS SURGERY ALWAYS NEEDED ?

As a general rule the lesion is aspirated stereotactically to get the bacteria for culture if we have not found it on other tests. We then treat the abscess with antibiotics for at least 6 weeks till we think it is cured. We follow you up with tests to check if there is evidence of infection in the body such as an E.S.R or a C.R.P. (ask your doctor). At the same time we are doing regular CAT scans to confirm that the infection is responding with the abscess reducing in size. Sometimes you will need more than one aspiration to aid rapid resolution of the infection. Some patients have more than one abscess but usually the bacteria is the same in both so we only need to biopsy the one lesion.

WHAT ARE THE AFTER EFFECTS OF HAVING A BRAIN ABSCESS ?

There may be none at all but this depends on the location and severity of the infection.

If you have had problems similar to a stroke during your treatment then this does not always recover. There is a good chance that things will improve during treatment and for a while afterwards.

The biggest problem is usually EPILEPSY. The infection even when treated may leave a scar in the brain and this may produce epileptic seizures. These can be treated successfully in most cases with medications.

Sometimes even if the infection disappears it may recur later so we tend to keep an eye on you.

The abscess may rupture into the middle of the brain or the outside of the brain to produce a meningitis.

FOR ANY PROCEDURES SEE THE RELEVANT PROCEDURE LEAFLET

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