St Vincent's Neuroscience

CRANIOTOMY & CLIPPING OF CEREBRAL ANEURYSM

The options for treatment of a cerebral aneurysm include:

- Endovascular interventions ie coiling, stenting, glueing
- Operative intervention and clipping of the cerebral aneurysm

OPERATION

Craniotomy & clipping of cerebral aneurysm

The neurosurgical treatment of an aneurysm involves the patient being put to sleep with a general anaesthetic. A curved incision and a bone window is created (craniotomy). A microscope is used to carefully identify the aneurysm and a permanent metallic clip is surgically placed across its neck, securing the aneurysm from further bleeding in the future. A ventricular drain may be inserted. Any associated blood clot is removed if safe and the bone is replaced with rivets and the patient awoken. If a subarachnoid haemorrhage has occurred often patients will require a two-week hospital stay ensuring a safe recovery.

Intravascular treatment of cerebral aneurysm

This procedure is performed by the neuroradiologist following discussion with the neurosurgeon. It is the essentially the same procedure as a digital subtraction angiogram however a general anaesthetic is required. A thin catheter and guidewire are passed upwards through the arteries to the base of the aneurysm. Several options are then possible including:

- Coiling
- Gluing
- Stenting

The procedure will take several hours. Depending on what option is used you may be required to continue taking blood thinning medication like asprin or plavix for a period of time. The neuroradiologist will discuss this with you. Several monitoring angiograms will also be required following this procedure. Occasionally the aneurysm neck may reform requiring a second procedure or operation.

Risks of these procedures

The risks of this operation includes the following. A detailed discussion with your surgeon is recommended prior to surgery.

- Infection – superficial wound infection or deeper infections including meningitis, osteomyelitis
- Bleeding – which may be superficial or deep causing intracerebral haematoma and stroke-like symptoms such as weakness, numbness and speech disturbance
- Epilepsy which may require medication
- Permanent neurological damage in the form of weakness, numbness, paralysis (stroke like symptoms)
- Cognitive impairment,which may include subtle changes in personality, memory & thought processing.
- Hydrocephalus – which may be temporary or permanent and may require a second operation.
- Loss of vision or double vision.
- Loss of smell or cerebrospinal fluid leak through the nose if a frontal approach is required.
- The need for a blood transfusion during or after the procedure.
- Coma and death

Treatment of a ruptured cerebral aneurysm usually occurs in a rapid manner due to the risk of the aneurysm rebleeding. In cases where the patient is in a poor grade SAH early intervention gives the best chance of any recovery.

St Vincent's Private Hospital Melbourne

St Vincent's Private Hospital Fitzroy
Phone: (03) 9411 7111

Website: www.svphm.org.au

St Vincent's Private Hospital East Melbourne
Phone: (03) 9928 6555

Website: www.svphm.org.au

St Vincent's Hospital Melbourne

St Vincent's Hospital Fitzroy
Telephone: (03) 9231 2211

Website: www.svhm.org.au

Neurosurgery

Dr. Kristian Bulluss
Phone: (03) 9416 4619

Dr. Carlos Chung
Phone: (03) 9419 5597

Dr. Tiew Han
Phone: (03) 03 9417

Dr. Peter McNeill
Phone: (03) 9928 6333

Assoc. Prof. Michael Murphy
Phone: (03) 9416 4619

Dr. Brendan O'Brien
Phone: (03) 9417 5033

Dr. Paul Smith
Phone: (03) 9639 3889

Dr. Christopher Thien
Phone: (03) 9421 0355

Dr. Yi Yuen (Ian) Wang
Phone: (03) 9939 7112

Neurology

Prof. Mark Cook
Phone: (03) 9288 3068