仁安醫院
UNION HOSPITAL

Please scan the QR code below to get the PDF file.

Operation Information

Craniotomy

Introduction

Craniotomy is a surgical operation in which a bone flap (a section of skull) is temporarily removed to expose the brain and perform an intracranial procedure. The neurosurgeon decides the most approachable and safest surgical corridor for tumor, vascular, or functional surgery. The indications of craniotomies include:

- Trauma (e.g. acute brain injury with haematoma, brain contusion, skull fracture)
- Tumor (e.g. meningioma, glioma etc.)
- Vascular (e.g. intracerebral hemorrhage, blood vessel infarction, aneurysms, vascular malformation, microvascular decompression)
- Infectious (e.g. brain abscess, empyema)
- Others (e.g. epilepsy, deep brain stimulation)

Outcomes

The expected outcomes of this procedure are determined on different indications. For examples, the resection of the lesion or tumor in main is removed, the haemorrhage from brain is stopped. Please discuss with your doctor for the better options of treatment.

Procedures

1. The operation is performed under general anaesthesia.
2. The head is partially shaved to expose the area of operation.
3. A cut is made in the scalp, usually behind the hairline, a skin flap is peeled back.
4. One or more small burr holes are drilled in the skull and a piece of bone is cut to reveal the brain underneath.
5. The doctor begins to correct the problems, such as removing tumor or blood clot, inserting an intracranial monitor and relieving the pressure inside the brain, etc.
6. The bone flap is then replaced and it is usually fixed with small metal screws to prevent movement.
7. The scalp is closed with stitches and staples.

Possible Risks and Complications

1. Wound infection
2. Wound bleeding
3. Temporary or permanent neurological deficit (stroke, e.g. paralysis of limbs or loss of speech)
4. Brain swelling
5. CSF leak
6. Fits

** The risks listed above are in general terms and the possibility of complications is not exhaustive. Please understand that even though all operations are carried out with utmost professionalism and care, this does not rule out the possibility of complications arising. In the event of peripheral organ damage or post-operative haemorrhage or leakage, further operations may be required.

Pre-operative Preparations

1. Good hygiene can prevent surgical wound infection. Therefore, we advise you to clean up yourself on the day of operation.
2. The procedure and possible complications will be explained by the doctor and a consent form must be signed prior to the operation.
3. Please inform the doctor and nurse all your past medical history, previous surgical operations, current medication and any complication with drug or anaesthesia. Please inform doctor if you are taking medications that affect blood coagulation such as Aspirin, Warfarin, Xarelto or Pradaxa, nonsteroidal anti-inflammatory drug (NSAID) such as ibuprofen, naproxen and Chinese medication.
4. You may have a blood test, cross match, electrocardiogram (ECG), MRI and CT brain scans before the operation if needed.
5. No food or drink six hours before operation.
6. Please change into a surgical gown after removing all clothing including undergarments, dentures, jewellery and contact lenses.
7. Please empty your bladder before the operation.

Post-operative Instructions

General

1. After general anaesthesia, you may:
   - experience discomfort in the throat after tracheal intubation.
   - experience side effects of anaesthesia includes feeling tired, drowsy, nausea or vomiting. Inform the nurse if symptoms persist or worsen.
2. Please inform the nurse of wound pain. Proper pain relief treatment by injection or oral medication may be prescribed by the doctor.
3. Depending on the complexity of the operation, you may need to be transferred to ICU for close post-operative observation and monitoring.
4. Nurses will check your size of pupils and ask you to follow simple commands, test of your limb strength to check the neurological functions post-operatively.
5. You might wear anti-embolism stockings and have a drip in your arm, and occasionally a urine catheter in your bladder.

Wound Care

1. The wound will be covered with a sterile dressing which must be kept clean and dry.
2. The stitches or staples will be removed in 7-10 days after the operation.
3. You will have a head bandage on which will be removed after a day or two post-operatively.

Activities

1. You will gradually return to normal activities.
2. Please avoid strenuous or contact sports, swimming and etc.

Diet

A normal diet may be resumed as instructed after recovery from anaesthesia.

Advice on Discharge

1. Please comply with medication regime as prescribed by your doctor.
2. You may shower after discharge unless otherwise instructed. Cover the head with shower cap during shower to avoid getting the dressing wet.
3. Immediately consult your doctor or return to hospital for professional attention in the event of severe headache, development of new or worsening symptoms (such as weakness or limbs numbness), increasing drowsiness, fits, severe wound pain associated with redness and swelling, secretion of pus, rash, massive bleeding, shivering, high fever over 38ºC or 100.4ºF, or any other unusual symptoms etc.
4. Any follow-up consultations should be attended as scheduled.
5. Your doctor will also explain to you any plans for further treatment and follow up.
6. If you are taking steroids, the dose will slowly be reduced, as prescribed by your doctor.

Should there be any enquiries or concerns, please consult the attending doctor.

Under the professional care of the doctor, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the doctor to further follow-up.

_____

_____

_____

Compiled by Union Hospital Operating Theatre (OT) Governance Committee

The above information is for reference only, please enquire your physician for details
Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification