Craniotomy

Definition: This type of surgery involves opening the skull to access its internal structures. This method is used to remove tumors and blood clots, reduce ICP, control bleeding and remove brain hematomas.

Type:

Super- Tentorium Craniotomy

Under- Tentorium Craniotomy

Postoperative Nursing Care:

- Controlling and recording GCS, V/S precisely every 51 minutes for up to 5 hours
- The correct position of Super- Tentorium Craniotomy is lying on the back, and top of the bed should be 30 degrees.
- The correct position of Under- Tentorium Craniotomy is lying on the back, in a straight position, and the head should be in a neutral position.
- Controlling patient’s pain and making him/ her calm

The patient may leave the operating room due to low level of consciousness and lack of proper breathing pattern. In this case, the following measures are necessary:

- Maintaining the endotracheal tube until full consciousness and awakening
- Assessing the patient's respiratory condition and, if necessary, using a ventilator (insufficient or no spontaneous breathing or respiratory distress) or O2 therapy (if O2Sat <90)
- Examining respiratory secretions and, if necessary, suction of the patient
- Performing respiratory physiotherapy and then suction to prevent atelectasis (fever in the first 42 hours after surgery indicates atelectasis)

Restriction of fluid intake and inability to excrete secretions are predisposing factors for atelectasis.

After surgery, the brain develops some edema and its rate reaches its highest level after 24- 36 hours after surgery.

Controlling the increasing symptoms of ICP is significant.

Increasing Symptoms of ICP: Changes in level of consciousness, restlessness, dizziness, drowsiness and Cushing Triad (bradycardia), respiratory disorders, hypertension (weakness of limbs)

Careful monitoring of O&I by placing a Foley catheter and examining urinary output greater than 452cc / h for two consecutive hours indicates the onset of tasteless diabetes (ICP ↑ complication) and should be reported. Other symptoms of tasteless diabetes include polyuria, increased serum osmolality, hypothermia, and urinary weight gain.
If the patient becomes conscious fully, oral hygiene in case of NPO and limited fluid intake, oral fluid intake is usually resumed after the first 42 hours. The presence of swallowing and gag reflexes and intestinal sounds should be checked before the patient is PO.

**Wound care:** Examining the wound for bleeding, CSF leakage and signs of infection; such as: redness, sensitivity, the purulent secretions, and informing the surgeon in case of these symptoms.

Performing drainage care if present, such as: Checking the drain for being active, the amount and color of the output material, charting the amount of fluid drained in each shift, placing the drain in the appropriate place according to the doctor's instructions (on the bed next to the patient or on the floor)

**Complications of the Operation:** Thrombosis, wound infection, pressure ulcer

To prevent **thrombosis**, do the following:

- Make the patient walk as soon as possible after he/she recovers
- Use varicose socks
- Take prescribed anticoagulants
- Check the symptoms of DVT: redness, pain and swelling in the leg and a positive Humans sign: If the knee is flat, if the foot becomes flexed (back of the foot), severe pain will occur in the leg.

To prevent **pressure ulcer**, do the following:

- Change the position of the patient every 2 hours
- Examine the skin of bony prominences for redness or sores
- Keep the patient’s bedsheet dry and smooth
- Do not drag the patient on the bed while moving him/her

If you have any questions or ambiguities, call the following numbers:

023-33437824, Surgery ward of Kosar Hospital