

## AI-Generated Medical Transcription

### Transcription:

Craniotomy for subdural hematoma appears deceptively simple and one of the first operations taught to neurosurgeons in training during residency. However, it is also associated with relatively high mortality and morbidity and therefore very important to master and treat with most care and caution. The key principles to follow here are: cauterized branches of middle meningeal artery supplying dura at the onset. Avoid any direct contact between the surgical instruments and friable brain. Hold bipolar in an angled manner to avoid simultaneous proximity of both tips to the brain resulting in thermal and electrical injury. Use irrigation for hydrocephalus. Cauterized its borders with dura and gently remove the rest. This is a case of a 72-year-old lady who presented with an episode of expressive aphasia for about an hour. She had a small head injury while gardening over a week prior to presentation. CT scan of her brain shows the large right hemispheric subdural hematoma on the left side resulting in 12mm midline shift. Her neurological status rapidly deteriorated while being monitored in ICU with aphasia and right-sided weakness. She was taken to the operating room for surgical evacuation of this hematoma. In the operating room she was positioned supine with shoulder roll under her left shoulder and head turned to the right and slightly elevated for improved venous drainage and brain relaxation. After making a large curvilinear incision a relatively large bone flap was elevated over the left of frontoparietal region. Bipolar cautery was used to cauterize the branches of middle meningeal artery. Packing sutures were used at the edges of the exposed dura. Dura was opened sharply exposing the large encapsulated and formed subdural hematoma. Large volume irrigation along the plane between the hematoma and brain with mild suction and bipolar cautery was used in gentle separation of this large clot from the brain. Large volume irrigation parallel to the plane bordering the clot and brain is gently used to separate them. Cautery is used gently for clot retrieval. While you are watching this gentle and patient process other noteworthy points had initially turned and raised slightly to improve venous drainage resulting in brain relaxation with surgical field flat during initial clot retrieval from the surface of the brain. Then

the head of the bed is raised for clot removal from the floor of the skull. Lastly with the brain relaxed, head of the bed is lowered and the clot at the vertex near the superior sagittal sinuses removed. Please note that the edges of the clot are never pulled or tugged on impatiently instead bipolar is used to coagulate the exposed edges. Here with the aid of surgical assistant irrigating hydro-dissection, bipolar coagulation and suction are carried on simultaneously to retrieve clots. Bipolar is mostly held in an angle to avoid both tips touching the brain. After removal of the clot, a cortical blood vessel was found to be hemorrhaging into the subdual space. This blood vessel may very well be supplying sensory motor cortex and therefore should be repaired gently and carefully. The side wall of this vessel was carefully sealed with low current bipolar artery with the artery remaining patent. Head of the bed is elevated and the remaining formed clot is carefully removed from the floor of the skull to the border where the subdual hematoma membrane meets the dura carefully by polar coagulated. This border is a common sight of recurrence of dura hematoma and should be dealt with care. Bed is then rotated on each side and additional clot removed similarly from anterior cranial fossa and occipital region with the borders cauterized. Bipolar is turned and held against dura, cauterizing the edges of the membrane. Prior to this direct visualization of this area is necessary to avoid inadvertent injury to unseen bridging vessels that need to be dealt with. Angled view endoscope is quite useful here. With most of the hematoma removed and brain relatively relaxed, the head is tilted down and blood adjacent to the superior sagittal sinus is carefully removed. Bipolar cautery is used with caution here to avoid injury or causing thrombosis of superior sagittal sinus. Wet gauze patties are used to protect the brain in form of a barrier between brain and surgical instruments where contact is inevitable. They are gently placed over and not dragged on the brain. They spread the force of instruments resulting in less pressure on brain during retractions. It is important to remove all the blood clot to prevent an osmotic gradient causing further accumulation of fluid in subdual space in the future. At this point, a bolus of half normal saline is given to the patient intravenously to increase cerebral blood flow and aid brain in regaining its normal volume and therefore lessening the subdual space. By now the brain has regained most of its volume and the dead space in subdual area is minimized. Head of the bed is brought back up

again. Papagrin-soaked gel form is placed over the repaired cortical artery to prevent vasus basm and injury to sensory motor cortex. The brain is then gently placed in dependent area of subdual space. The wound flap is re-approximated in a standard fashion. I usually keep the patient flat postoperatively with the drain in place and raise the head of the bed gradually daily. Postoperative CT scan showed complete removal of the hematoma with no complication. Most importantly, she returned to completely normal function and was discharged home. I was told I don't remember it but I woke up on the next day and I'm just like I am now talking too much. Not talking enough. The best thing about it was I never had that terrible feeling even when I was out of it and I was not responsive. I didn't feel frustrated. I didn't feel frustrated. I was just nice. I opened my eyes and I saw a nurse. I remember that. I was really happy. I was really happy. I was really happy. I was really happy.

#### Summary:

Craniotomy for subdural hematoma is one of the first operations taught to neurosurgeons in training during residency. It is also associated with relatively high mortality and morbidity. The key principles to follow here are Cauterized branches of middle meninjal artery supplying duro at the onset. Avoid any direct contact between the surgical instruments and friable brain.