TITLE OF OPERATION:, Left-sided large hemicraniectomy for traumatic brain injury and increased intracranial pressure.,INDICATION FOR SURGERY: , The patient is a patient well known to my service. She came in with severe traumatic brain injury and severe multiple fractures of the right side of the skull. I took her to the operating a few days ago for a large right-sided hemicraniectomy to save her life. I spoke with the family, the mom, especially about the risks, benefits, and alternatives of this procedure, most especially given the fact that she had undergone a very severe traumatic brain injury with a very poor GCS of 3 in some brainstem reflexes. I discussed with them that this was a life-saving procedure and the family agreed to proceed with surgery as a level 1. We went to the operating room at that time and we did a very large right-sided hemicraniectomy. The patient was put in the intensive care unit. We had placed also at that time a left-sided intracranial pressure monitor both which we took out a few days ago. Over the last few days, the patient began to slowly deteriorate little bit on her clinical examination, that is, she was at first localizing briskly with the right side and that began to be less brisk. We obtained a CT scan at this point, and we noted that she had a fair amount of swelling in the left hemisphere with about 1.5 cm of midline shift. At this point, once again I discussed with the family the possibility of trying to save her life and go ahead and doing a left-sided very large hemicraniectomy with this _____ this was once again a life-saving procedure and we proceeded with the consent of mom to go ahead and do a level 1 hemicraniectomy of the left

side.,PROCEDURE IN DETAIL: , The patient was taken to the operating room. She was already intubated and under general anesthesia. The head was put in a 3-pin Mayfield headholder with one pin in the forehead and two pins in the back to be able to put the patient with the right-hand side down and the left-hand side up since on the right-hand side, she did not have a bone flap which complicated matters a little bit, so we had to use a 3-pin Mayfield headholder. The patient tolerated this well. We sterilely prepped everything and we actually had already done a midline incision prior to this for the prior surgery, so we incorporated this incision into the new incision, and to be able to open the skin on the left side, we did a T-shaped incision with T vertical portion coming from anterior to the ear from the zygoma up towards the vertex of the skull towards the midline of the skin. We connected this. Prior to this, we brought in all surgical instrumentation under sterile and standard conditions. We opened the skin as in opening a book and then we also did a myocutaneous flap. We brought in the muscle with it. We had a very good exposure of the skull. We identified all the important landmarks including the zygoma inferiorly, the superior sagittal suture as well as posteriorly and anteriorly. We had very good landmarks, so we went ahead and did one bur hole and the middle puncta right above the zygoma and then brought in the craniotome and did a very large bone flap that measured about 7 x 9 cm roughly, a very large decompression of the left side. At this point, we opened the dura and the dura as soon as it was opened, there was a small subdural hematoma under a fair

amount of pressure and cleaned this very nicely irrigated completely the brain and had a few contusions over the operculum as well as posteriorly. All this was irrigated thoroughly. Once we made sure we had absolutely great hemostasis without any complications, we went ahead and irrigated once again and we had controlled the meddle meningeal as well as the superior temporal artery very nicely. We had absolutely good hemostasis. We put a piece of Gelfoam over the brain. We had opened the dura in a cruciate fashion, and the brain clearly bulging out despite of the fact that it was in the dependent position. I went ahead and irrigated everything thoroughly putting a piece of DuraGen as well as a piece of Gelfoam with very good hemostasis and proceeded to close the skin with running nylon in place. This running nylon we put in place in order not to put any absorbables, although I put a few 0 popoffs just to approximate the skin nicely. Once we had done this, irrigated thoroughly once again the skin. We cleaned up everything and then we took the patient off _____ anesthesia and took the patient back to the intensive care unit. The EBL was about 200 cubic centimeters. Her hematocrit went down to about 21 and I ordered the patient to receive one unit of blood intraoperatively which they began to work on as we began to continue to do the work and the sponges and the needle counts were correct. No complications. The patient went back to the intensive care unit.