

PREOPERATIVE DIAGNOSIS: ,Status post spontaneous hemorrhage from medial temporal arteriovenous malformation with arteriographic evidence of associated aneurysm.,POSTOPERATIVE DIAGNOSIS: , Status post spontaneous hemorrhage from medial temporal arteriovenous malformation with arteriographic evidence of associated aneurysm.,OPERATION: , Right pterional craniotomy with obliteration of medial temporal arteriovenous malformation and associated aneurysm and evacuation of frontotemporal intracerebral hematoma.,ANESTHESIA: , Endotracheal.,ESTIMATED BLOOD LOSS: , 250 mL,REPLACEMENTS: ,3 units of packed cells.,DRAINS:, None.,COMPLICATIONS: , None.,PROCEDURE: ,With the patient prepped and draped in the routine fashion in the supine position with the head in a Mayfield headrest, turned 45 degrees to the patient's left and a small roll placed under her right shoulder and hip, the previously made pterional incision was reopened and extended along its posterior inferior limb to the patient's zygoma. Additional aspect of the temporalis muscle and fascia were incised with cutting Bovie current with effort made to preserve the posterior limb of the external carotid artery. The scalp and temporalis muscle were then retracted anteroinferiorly with 0 silk sutures, attached rubber bands and Allis clamps and similar retraction of the posterior aspect of temporalis was retracted with 0 silk suture, attached with rubber bands and Allis clamps. The bone flap, which had not been fixed in place was removed. An additional portion of the temporo frontal bone based at the zygoma was

removed with a B1 dissecting tool, B1 attached to the Midas Rex instrumentation. Further bone removal was accomplished with Leksell rongeur, and hemostasis controlled with the use of bone wax. At this point, a retractor was placed along the frontal lobe for visualization of the perichiasmatic cistern with visualization made of the optic nerve and carotid artery. It should be noted that cottonoid paddies were placed over the brain to protect the cortical surface of the brain both underneath the retractor and the remainder of the exposed cortex. The sylvian fissure was then dissected with the dissection description being dictated by Dr. X. Following successful splitting of the sylvian fissure to its apparent midplate, attention was next turned to the temporal tip where the approximate location of the cerebral aneurysm noted on CT angio, as well as conventional arteriography was noted and a peel incision was made extending from the temporal tip approximately 3 cm posterior. This was enlarged with bipolar coagulation and aspiration and inferior dissection accomplished under the operating microscope until the dome of, what appeared to be, an aneurysm could be visualized. Dissection around the dome with bipolar coagulation and aspiration revealed a number of abnormal vessels, which appeared to be involved with the aneurysm at its base and these were removed with bipolar coagulation. Until circumferential dissection revealed 1 major arterial supply to the base of the aneurysm, this was felt to be able to be handled with bipolar coagulation, which was done and the vessel then cut with microscissors and the aneurysm removed

in toto.,Attention was next turned to the apparent nidus of the arteriovenous malformation, which was somewhat medial and inferior to the aneurysm and the nidus was then dissected with the use of bipolar coagulation and aspiration microscissors as further described by Dr. X. With removal of the arteriovenous malformation, attention was then turned to the previous frontal cortical incision, which was the site of partial decompression of the patient's intracerebral hematoma on the day of her admission. Self-retaining retractors were placed within this cortical incision, and the hematoma cavity entered with additional hematoma removed with general aspiration and irrigation. Following removal of additional hematoma, the bed of the hematoma site was lined with Surgicel. Irrigation revealed no further active bleeding, and it was felt that at this time both the arteriovenous malformation, associated aneurysm, and intracerebral hematoma had been sequentially dealt with.,The cortical surface was then covered with Surgicel and the dura placed over the surface of the brain after coagulation of the dural edges, the freeze dried fascia, which had been used at the time of the 1st surgery was replaced over the surface of the brain with additional areas of cortical exposure covered with a DuraGuard. The 2nd bone flap from the inferior frontotemporal region centered along the zygoma was reattached to the initial bone flap at 3 sites using a small 2-holed plate and 3-mm screws and the portable minidriver.,With this, return of the inferior plate accomplished, it was possible to reposition the bone flaps into their initial configuration, and attachments were secured anterior and

posterior with somewhat longer 2-holed plates and 3-mm screws to the frontal and posterior temporal parietal region. The wound was then closed. It should be noted that a pledget of Gelfoam had been placed over the entire dural complex prior to returning the bone flap. The wound was then closed by approximating the temporalis muscle with 2-0 Vicryl suture, the fascia was closed with 2-0 Vicryl suture, and the galea was closed with 2-0 interrupted suture, and the skin approximated with staples. The patient appeared to tolerate the procedure well without complications.