Operating Room Reports

Personal Experience: The following is excerpted from the operative note in my (Rick Labuda's) medical records; the surgery was performed on 1/21/99. My personal memory of the OR is dominated by how cold it was when I was first rolled in, and how nice the heated blankets felt when I was finally situated on the table.

The patient was taken to the operating room where intravenous and intra-arterial lines were placed. General anesthesia was induced and the patient endotracheally intubated. Once the tube was secured, the Mayfield skull clamp was applied. The Foley catheter was placed. The patient was rolled into the left lateral decubitus position. The head position was fixed in the Mayfield head holder and the skin prepped and draped in usual fashion.

A linear skin incision was made and carried through the skin and subcutaneous tissue to the paracervical fascia. The paracervical fascia was incised with a cutting cautery. A midline subperiosteal dissection was performed. Self-retaining retractors were placed. The occiput was identified.

Adhesions at the base of the foramen magnum were freed up. Craniotome was used to turn a small craniotomy flap in the suboccipital region. Measured that the patient would need 3.5cm to decompress. This was the distance that was taken.

The dura was opened. The CSF was under a good bit of pressure as were the cerebellar tonsils. The cisterna magna was drained. A dural graft was cut to length and sewed into place. Things were really quite nicely decompressed.

Meticulous hemostasis was achieved with bipolar cautery. Bone edges were waxed. The wound was thoroughly irrigated. Thrombin-soaked Gelfilm was placed over the dural defect. 2-0 Vicryl was used to close the paracervical musculature and paracervical fascia. The same was used for the subcutaneous tissue. Staples were placed on the skin. Evoked potentials were stable throughout.

For a different perspective, following is the operative report from a very young child who encountered complications during the surgery:

12 month old patient was identified on arrival to the operating room and placed under general endotracheal anesthesia. The patient was then positioned prone on a gel-filled roll by a padded horseshoe rest. All pressure points were carefully padded. The suboccipital and upper posterior

cervical regions were prepped and draped in the usual sterile fashion. An incision was marked from the midline to the C2 spinous process. This incision was then infiltrated with 0.25% bupivacaine, 1:200,000 epinephrine and opened with a No. 15 blade. It was deepened with monopolar cautery to expose the suboccipital bone subperiosteally. Our dissection was then extended inferiorly over the C1 lamina. Self-retaining retractors were used to reflect the fascia and muscle laterally and expose the bone. We continued our dissection out over the lateral aspect of the C1 lamina and also superior to expose the foramen magnum. An angled curette was then used to dissect the ligament off the lamina inferiorly and superiorly and also at the foramen magnum. Two burholes were then placed 2 cm superior to the foramen magnum and 2 cm lateral to the midline. With the perforator, the dura was then dissected free with a dental tool and then with a 3.0 Penfield. We then used the B5 with footplate to perform a craniectomy between these two burholes and down to the foramen magnum on both sides respectively. We then were able to dissect the suboccipital bone away with a curette, protecting the underlying dura. We then used the B5 with footplate to perform a laminectomy at C1. The bony removal extended out to the lateral aspect of the foramen magnum on either side. All the epidural venous bleeding was controlled with bipolar cautery and liquid Gelfoam. We did encounter significant venous bleeding from what was likely the occipital sinus. Despite the use of bipolar cautery, liquid Gelfoam and sutures, the bleeding persisted and was eventually stopped completely. In the interim, however, there was blood loss which prompted fluid resuscitation and resuscitation with packed red blood cells. Due to concern for access during this period of fluid resuscitation, the patient's wound was packed with moistened Ra-Tecs and sutured using 3-0 Vicryl. The draping was then taken down to facilitate allowing access points to be obtained for fluid resuscitation. These access points were obtained, and the patient was reprepped and draped in the usual sterile fashion. Immaculate hemostasis was achieved. A 15 blade was used to open a thick fibrous band in the midline of the foramen magnum and down to the dura. There was dural edge bleeding, controlled with placement of 4-0 Vicryl stay sutures. The dural opening was then extended in a diamond shape up over the cerebellar hemispheres and inferiorly down towards the spinous process of C2. The dura was then reflected and held laterally by 4-0 Vicryl sutures. The intradural contents were explored. We visualized the opening of the fourth ventricle and noted no arachnoid veil to be present. We then fashioned a duraplasty of bovine pericardium and sewed this into place with a 4-0 Vicryl suture in a water tight fashion. The wound was then irrigated clear, and the fascia, dermis and skin were closed in layers with 2-0 Vicryl and 3-0 Vicryl and a running 4-0 Monocryl suture for the skin. There were no complications. Blood loss was assumed to be approximately 250 cc. The patient was extubated in the OR and transferred to the Pediatric ICU for further monitoring.

Source: Conquer Chiari: A Patient's Guide to the Chiari Malformation – Second Edition, pages 140-142