PREOPERATIVE DIAGNOSIS: , Lumbar stenosis.,POSTOPERATIVE DIAGNOSES:, Lumbar stenosis and cerebrospinal fluid fistula.,TITLE OF THE OPERATION,1. Lumbar laminectomy for decompression with foraminotomies L3-L4, L4-L5, L5-S1 microtechniques.,2. Repair of CSF fistula, microtechniques L5-S1, application of DuraSeal.,INDICATIONS:, The patient is an 82-year-old woman who has about a four-month history now of urinary incontinence and numbness in her legs and hands, and difficulty ambulating. She was evaluated with an MRI scan, which showed a very high-grade stenosis in her lumbar spine, and subsequent evaluation included a myelogram, which demonstrated cervical stenosis at C4-C5, C5-C6, and C6-C7 as well as a complete block of the contrast at L4-L5 and no contrast at L5-S1 either and stenosis at L3-L4 and all the way up, but worse at L3-L4, L4-L5, and L5-S1. Yesterday, she underwent an anterior cervical discectomy and fusions C4-C5, C5-C6, C6-C7 and had some improvement of her symptoms and increased strength, even in the recovery room. She was kept in the ICU because of her age and the need to bring her back to the operating room today for decompressive lumbar laminectomy. The rationale for putting the surgery is close together that she is normally on Coumadin for atrial fibrillation, though she has been cardioverted. She and her son understand the nature, indications, and risks of the surgery, and agreed to go ahead.,PROCEDURE: , The patient was brought from the Neuro ICU to the operating room, where general endotracheal anesthesia was obtained. She was

rolled in a prone position on the Wilson frame. The back was prepared in the usual manner with Betadine soak, followed by Betadine paint. Markings were applied. Sterile drapes were applied. Using the usual anatomical landmarks, linear midline incision was made presumed over L4-L5 and L5-S1. Sharp dissection was carried down into subcutaneous tissue, then Bovie electrocautery was used to isolate the spinous processes. A Kocher clamp was placed in the anterior spinous ligament and this turned out to be L5-S1. The incision was extended rostrally and deep Gelpi's were inserted to expose the spinous processes and lamina of L3, L4, L5, and S1. Using the Leksell rongeur, the spinous processes of L4 and L5 were removed completely, and the caudal part of L3. A high-speed drill was then used to thin the caudal lamina of L3, all of the lamina of L4 and of L5. Then using various Kerrison punches, I proceeded to perform a laminectomy. Removing the L5 lamina, there was a dural band attached to the ligamentum flavum and this caused about a 3-mm tear in the dura. There was CSF leak. The lamina removal was continued, ligamentum flavum was removed to expose all the dura. Then using 4-0 Nurolon suture, a running-locking suture was used to close the approximate 3-mm long dural fistula. There was no CSF leak with Valsalva.,I then continued the laminectomy removing all of the lamina of L5 and of L4, removing the ligamentum flavum between L3-L4, L4-L5 and L5-S1. Foraminotomies were accomplished bilaterally. The caudal aspect of the lamina of L3 also was removed. The dura came up quite nicely. I explored out along the L4, L5, and S1

nerve roots after completing the foraminotomies, the roots were quite free. Further more, the thecal sac came up quite nicely. In order to ensure no CSF leak, we would follow the patient out of the operating room. The dural closure was covered with a small piece of fat. This was all then covered with DuraSeal glue. Gelfoam was placed on top of this, then the muscle was closed with interrupted 0 Ethibond. The lumbodorsal fascia was closed with multiple sutures of interrupted 0 Ethibond in a watertight fashion. Scarpa's fascia was closed with a running 0 Vicryl, and finally the skin was closed with a running-locking 3-0 nylon. The wound was blocked with 0.5% plain Marcaine.,ESTIMATED BLOOD LOSS: Estimated blood loss for the case was about 100 mL.,SPONGE AND NEEDLE COUNTS: Correct.,FINDINGS: A very tight high-grade stenosis at L3-L4, L4-L5, and L5-S1. There were adhesions between the dura and the ligamentum flavum owing to the severity and length of the stenosis.,The patient tolerated the procedure well with stable vitals throughout.