**Microdisc**

OPERATIVE PROCEDURE

DATE OF SURGERY: 05/20/2016

PREOPERATIVE DIAGNOSIS: L3-L4 right-sided huge disc bulge with right-sided L4 and L3 radiculopathy.

POSTOPERATIVE DIAGNOSIS: L3-L4 right-sided huge disc bulge with right-sided L4 and L3 radiculopathy.

SURGEON: Dr. Amit Bhandarkar.

ASSISTANT: Jennifer.

BLOOD LOSS: 150.

COMPLICATIONS: None.

IMPLANT: None.

PROCEDURES PERFORMED:

1. Hemilaminectomy, foraminotomy L3-L4

2. Decompression of L4 nerve root.

3. Retrieval of extruded disc fragment which was fibrosed

4. Use of microscope for better visualization.

5. Use of C-arm for better positioning the tubular retractor.

6. Use of minimally invasive tubular retractor and dilatation technique for discectomy.

7. Increased difficulty in the procedure because of high BMI of the patient.

PREOPERATIVE AREA: In the preoperative area, the nature of the procedure, the approach

to the disc, possible outcomes, and recovery course was discussed in details with the patient.

The patient was also told about the possible complications including infection, blood clot

formation, permanent or temporary nerve root damage, spinal fluid leak, and other related

complications. The patient completely understands the risks of the procedure and consented for

it. The patient's back was then marked and the site was then marked.

The patient was then taken to operation room, where she was identified by the head nurse and

also by the anesthetist. After that, anesthesia was administered for general anesthesia. All the

neuro monitoring lines were then plugged in. She was also catheterized.

Her baseline was also carried out. She was then positioned prone on the Jackson table and all

her bony prominences were padded. She was then prepped and draped in the lumbar area in the

usual sterile fashion. ChloraPrep was used for prepping the wound. She was draped free in the

lumbar area.

C-arm was then asked for and we localized her left side L3 - 4 disc. A paramedian incision was

taken about 2.5 cm in length away from the midline, around 3 to 4 cm from the midline. The

incision was then carried out to the fascia. Blunt dissection of the back was taken out. She was

very deep. The fascia was then incised and a Cobb was then used to bluntly dissect the

multifidus layers off the L3 lamina. After that, a blunt dilator was then introduced and was

positioned in the inferior aspect of the lamina of L3. It was sequentially dilated with increasing

size of dilators until we reached 23 mm tube was then inserted over the dilators and its position

was then checked with C-arm. It was appropriately positioned at L3- 4 disc space.

After checking its position, it was then anchored to the table and made immobile. The tubes

were then removed and we had a view of the lamina of L3 with minimal muscle over it, which

was dissected using bipolar. Nice hemostasis was achieved and now we had a view of the L3

lamina also L3-4 disc space, ligamentum flavum, and also the L3 4 medial part of the facet.

The depth of the tube was mm. We had to use a long tube, which made it difficult to use

some of the shorter instruments that we required. After that, burr was used to burr down the

inferior edge of L3lamina all the way to the midline and hemifacetectomy was then performed

by undercutting the facet using the burr at l3- 4 after complete bony work, bone wax was used to ascertain hemostasis. Atterntion was diverted

to the ligamentum flavum. Sufficient pars was preserved so as not to cause any postoperative

instability and sufficient facets were also preserved. After that, ligamentum flavum was slowly

teased out from its attachment to the inferior part of the lamina of L5 using a Woodson and

curettes. Once this was completely teased out, curette and rongeur was then used to carry out

the hemilaminectomy.

After the hemilaminectomy was completed. The Woodson was then introduced under the

ligamentum flavum and it was then slowly dissected off the dura. We were able to see the dura

completely. The ligamentum flavum was then slowly excised in bits and pieces.

After excision of ligamentum flavum on the left side, we were able to identify the L4 nerve root,

which was thick and swollen and it was adhered to the underlying disc tissue and was covered

with thin membrane. It was very difficult to mobilize that nerve root medially because it was

under a lot of pressure. We had to expose a little bit lateral side and underneath facet to have

access to the nerve on the lateral side.

After that, the nerve root was slowly teased off from the underlying discal tissues, which was

very tough and was very adherent and it was also covered with membrane including the nerve

root. There was also lots of bleeding coming out from the discal area because she had ruptured

disc which was getting vascularized. So the bleeding then controlled with SURGIFLO. The

disc also seemed to be superiorly migrated and also engulfed in with lots of vascular tissue,

which we slowly cauterized using bipolar. We were also able to dissect a plane between the L4

nerve root and the disc and slowly teased out the bulging disc from underneath the L4 nerve

root.

After removing substantial amount of disc from underneath the L4 nerve root, there was good

mobility at the L4 nerve root. We also pulled out the disc which was extruded into the foramen

of L4. The L4 foramen was then completely made free from all directions and was ascertained

that L4 has free mobility. The foramen was also probed with a foraminal probe and we were

able to pass that without any jumping or any problems at all. So and then, we did hemostasis of

all the disc fragments and the disc bed area, which was very vascular, using a bipolar cautery and

also SURGIFLO.

We irrigated the wound then with Bacitracin mixed normal saline. After thorough irrigation and

after achieving hemostasis, we pulled out the tubular retractor. Vancomycin powder was applied

at the muscular end. She was very deep. It was difficult to suture the fascia, but we were able

to obtain two to three stitches in her deep fascia, which held the patient tightly closed. The

fascia was closed with 1-0 Vicryl and also with Steri-Strips.

After closure of the fascia, we then were able to close the subcutaneous tissue and surrounding

fat with 2-0 Vicryl and then subcuticular suture, then Prineo dressing was then applied and

Dermabond was applied over it and everything was secured with another sterile dressing in the

form of 4 x 4 and secure tape. There were no drains put in. The local area was also infiltrated

with a mixture of Depo-Medrol, Marcaine and Toradol for postoperative pain relief.

After the procedure, the patient was then turned supine and was extubated. She never had any

problems with neuro monitoring. We had good baseline in surgery and was at baseline and we

maintained those sensory and motor baseline throughout the procedure.

After the procedure, she was extubated and then was transferred to PACU. In PACU, her pain

was controlled with Fentanyl. She had a tolerable amount of pain and she was moving all

extremities. She actually regained the power in her left foot which she was able to move up and

down and also she said that she had obtained pain relief. She tolerated the procedure very well.