**TLIF single female**

OPERATIVE PROCEDURE

DATE OF SERVICE:

In the preoperative area, the patient was seen and was marked and signed and consented appropriately. We talked to him about the risk of the procedure, which includes, but not limited to infection, hematoma formation, or visceral penetration, implant breakage, implant misplacement, and also about nerve damage, permanent and temporary. She understood all of the risk factors and wants to proceed with surgery. The nature of the surgery was explained to her in details We explained to her that we will first proceed with coflex but if we find out that the patient's bone stock is not enough after decompression we might proceed with TLIF at that level. We decided to go with open surgery with central incision.

PREOPERATIVE DIAGNOSIS: The patient has degenerated disc disorder at L4 - L5 with spondylolisthesis with predominantly left sided radiculopathy L4-5 with spinal canal stenosis at L4-5. With a synovial cyst at the L4-5 facet on the left.

POSTOPERATIVE DIAGNOSIS: The patient has degenerated disc disorder at L4 - L5 with spondylolisthesis with predominantly left sided radiculopathy L4-5 with spinal canal stenosis at L4-5. With a synovial cyst at the L4-5 facet on the left.

The following procedures were done on her.

1. TRANSFORAMINAL POSTERIOR LUMBAR INTERBODY FUSION left side at L4 and l5

2. USE OF INTERBODY SPACERS AT L4-5.

4. USE OF A NONSEGMENTAL INSTRUMENTATION FROM L4 TO l5.

5. LAMINECTOMY OF L4.

6. HEMIFACETECTOMY OF L4/5 right.

7. POSTEROLATERAL FUSION AT L4, AND L5 ON BOTH SIDES.

8. USE OF C-ARM IMAGERY TO DEFINE PLACEMENT OF IMPLANTS.

9. ATTEMPTED POSTEROLATERAL ARTHRODESIS AT L4-5

10. USE OF ALLOGRAFT AND AUTOGRAFT FOR FUSION.

ASSISTANTS: None

ESTIMATED BLOOD LOSS: 250 cc.

COMPLICATIONS: None

PROCEDURE: Once inside the operating room, the patient's name and particulars were checked by the chief nurse and the anesthetist and anesthesia was given to him. She was given general anesthesia and was intubated and put on the vent. After intubation, he fixed line including an A-line for monitoring. She was also catheterized. The neuro monitoring people hooked up to the neuro monitoring equipment. After that, the patient was positioned prone. All her bony prominences were padded and adequate care was taken to avoid any compression on his bony prominences. She then was prepped using ChloraPrep and was then allowed to dry and then was draped sterilely in the usual manner. Timeout was then performed and all of the particulars, which included, but not limited to the patient's name, age, sex, case diagnoses, case allergies, and administration of antibiotics was then confirmed. Following which a midline incision was then taken on her lower back. Using C-arm guidance from L4 all the way to S1.

A midline approach was then taken and the paraspinal muscles were slowly dissected off the midline structure which included spinous process. The spinous process was then exposed and so were the pars and the facet joints of L4-L5. We deicided to go with limited decompression initially to preserve the lamina of L4 and do a coflex. But we found out that she was very severly stenosed and she need further removal of her lamina and especially her left sided facet which also had the synovial cyst to have approapriate decompression. Hence we decided to proceed with TLIF and abandoned the plang of Coflex.

L4 laminectomy was then carried out starting from left side first and was slowly going through the right. The inferior lamina was found to be intact and was engulfed in fibrosis. Ligamentum flavum was slowly removed after laminectomy to expose the L5 nerve roots. The L5 nerve roots were completely made free in its entirety. After doing laminectomy, attention was then diverted to insert pedicle screw. The L5 screws were introduced first followed by L4 Screws were subsequently inserted. C-arm guidance was used and the anatomy was very difficult to identify considering the fibrous tissue. The fibrous tissue was possibldy due to the synovial cyst. After putting all the screws on stimulation, screws fared well. Then, attention was diverted to L4/5 disc space. The disc space was exposed on the left side after complete facetectomy - first and the annulus was incised with a #15 blade. The nucleus was then excised and discectomy was then carried out. The disc space was then prepared. Shavers were used to prepare the disc space including curettes, roungers, and rasps to get to the bleeding bone. The disc space, dilated slowly with the blunt shaver. A little distraction was then put at L4-5across the pedicle screws and using distractor, the annulus was then completely excised on the left side. TLIF banana size graft was packed with bone graft and inserted to the left side. Before insertion, in the disc space was impacted with Osteoset and a local Autograft material. It was a banana cage which was inserted at a 45 degree angle and then slowly hammeed in at one end to lie trasversly across the disc space. After, proper insertion of the cages was checked on x-ray and it was appropriate. The decompression was then checked for nerve root at S1 was completely seen and also there was no evidence of compression. Attention was then diverted to the right side. The S1 nerve root was retracted and annulotomy was then performed on the right and few fragments of nucleus was then removed. During instrumentation, the instruments were sequentially compressed at L4-5 the morcellized bone graft material was then packed at theL 4-5 along with mastergraf. Before that, the patient was given lots of irrigation. All of the bleeding points were cauterized using the bipolar. The exposed dura was then dried following which the exposed dura was covered with Gelfoam and posterolateral bone grafting was done for decortication of the facet joints and whatever lamina was exposed. C-arm images were then checked subsequently and had very good alignment at L4/L5 and S1. We accepted this alignment and we decided for closure. Vancomycin 200 mg was applied locally onto the muscles and subcutaneous area. The fascia was closed using 1-0 vicryl also reinforced with Vicryl #1. A deep drain was put below the fascia. Another drain was put above the fascia in the fat layer. The subcutaneous was taken with 2-0 Vicryl and subcuticular stitches were taken with 5-0 Vicryl. A Perinio mesh was put for the dressing along with Dermabond and the wound closed very well and the wound closed very well and sterile dressing was then applied. Drains were connected. The patient was then extubated and was taken to the PACU.

The patient tolerated the procedure really well. We were able to extubated him in the PACU. Pateint as moving all four limbs and she was neurologically intact in his lower limbs. She had both sensation and motor power in both lower limbs.

Patient's pain was tolerable in the PACU and then she was loaded with morphine PCA. She was then transferred to SPECIAL CARE UNIT for further care.