**TLIF MAS L5 S1 female**

OPERATIVE PROCEDURE

In the preoperative area, the patient was seen and was marked and signed and consented appropriately. We talked to her 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 MAS TLIF with 2 lateral incisions

PREOPERATIVE DIAGNOSIS: The patient has degenerated disc disorder at L5- S1 with spondylolisthesis with predominantly right sided radiculopathy lateral canal stenosis at L5- S1.

POSTOPERATIVE DIAGNOSIS: The patient has degenerated disc disorder at L5- S1 with spondylolisthesis with predominantly right sided radiculopathy lateral canal stenosis at L5- S1.

The following procedures were done on her.

1. TRANSFORAMINAL POSTERIOR LUMBAR INTERBODY FUSION right side at L5 and S1.

2. USE OF INTERBODY SPACERS AT L5- S1

4. USE OF A NONSEGMENTAL INSTRUMENTATION FROM L5- S1

5. Hemi-LAMINECTOMY OF L5

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

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

8. ATTEMPTED POSTEROLATERAL ARTHRODESIS AT L5- S1

9. USE OF ALLOGRAFT AND AUTOGRAFT FOR FUSION.

ASSISTANTS: None

ESTIMATED BLOOD LOSS: 150cc.

COMPLICATIONS: None

OPERATIVE PROCEDURE

Patient was brought to the operating room was identified by the anesthetist and the chief nurse. IV access lines were established anesthesia was then administered Lines were secured SCDs were placed. Foley's catheter was then placed. Patient was then positioned prone. All bony prominences were padded. Monitoring baseline was then carried out all looked okay. Patient was then prepped and draped in routine fashion. ChloraPrep was used for Prepping she was draped free exposing her lumbar spine. She was administered vanocmycin as his antibiotic.

A formal timeout was then carried out and everything including but not limited to his name, type of surgery, duration of surgery site and side was confirmed for midline incision.

For MAS TLIF: 2 incisions based on the lateral aspect of the pedicle as determined using a C- arm were taken at the the L5-S1 level. We started from the right side. Thoracolumbar fascia and erector spinae aponeurosis was then incised.pedicle screws were then inserted screws at L5 and S1 using C - arm guidance. L5 50 mm 6.5 mm diameter, freehand technique and fluoroscopy was used intermittently to ascertain that they are positioned correctly. The screws were subsequently checked with the neuro monitoring and they all really faired on the neuromonitoring score. The Specially designed MAS TLIF retractor blades were then positioned along with the screws to give maximum access with the available incision to the facet joints. Para spinal inter muscular interval was then taken to reach the bilateral facet joints at L5 to S1 levels. blunt dissection aided by cobb and Bovie was carried out. L5 lamina L5-S1 facet joint and L5 TPs were exposed. L5-S1facetectomy was then carried out using osteotome and a bur the inferior L 5facet was osteotomized. And then the remaining superior articular facet ofS1 was also osteotomized. Patient was very vascular in the disc space patient was really deep and we had really difficult time visualizing the strucutres for some time.we used surgicelll and Surgiflo for bleeding control. After adequate bleeding controlled. A rectangular disc is opening was created at L4-5 disc. Thorough discectomy was then performed and the graft was prepared for insertion. The disc space was thoroughly prepared with rasp rongers and curettes. After preparing the disc space morselized mix of auto allograft was inserted into the disc space. Following which a 10 mm graft loaded peek cage with 4 lordosis was inserted at L5-S1 disc space under fluoroscopic guidance.

The decompression from the lateral side paraspinal approach was then carried out the hemilamina of the L5 was exposed and burred down to decompress the underlying dura. The ligamentum flavum was excised. The free space for the exiting and traversing nerve root at L5-S1 was also ascertained by passing a foraminal ball tip probe. Patient had enough volume of good local bone graft iliac crest bone graft harvesting was not required.

After tightening of the screws wound site was irrigated with bacitracin mixed normal saline. We then double checked our decompression. Again, the curved ball probe was able to pass without causing any jumping of the leg. Feeling very happy with the foraminal opening as well as the lateral recess, I then proceeded to roughen the transverse process and sacral ala using a burr. I used some of the local bone obtained from laminectomy and facetectomy as autograft and I packed approximately 5 cc of our bone graft mixture out posterolaterlally to be able to obtain a posterolateral fusion as well. Hemostasis was ensured Gelfoam was put above the exposed dura. 50 mg of powdered vancomycin was applied to muscles before closure. I repeated this procedure on both sides.

On the opposite side which was right side we did similar incision and inserted screws under C arm guidance with percutanuous technique. The screws fared well on neruomitoring score and their position was accepted.

The wound was then closed in layers. Fascia was appropriately approximated with stratifix l, subcutaneous stitches were taken with 2-0 Vicryl and subcuticular stitches were taken with 5-0 Vicryl sterile dressing was then applied. The wound was injected both superficially and deep with a mix of dexamethasone 10 mg, Toradol 30 mg and 0.5%marcaine with epinephrine 30cc for postoperative pain control. Patient was dressed with Dermabond and Steri-Strips. Sterile dressing was then appliedPatient was then turned supine and extubated she was then taken to PACU for recovery.

Patient had no problem throughout the procedure with her neuro monitoring.

The Procedure took approximately 25% extra time given the patients size and muscularity and difficulty during the procedure. Otherwise, there were really no complications. Patient tolerated the procedure really well and there were no complications. Total blood loss was 150cc total. Saw the patient in PACU and PCU vitals were stable and her pain was tolerable. She had no new neurodefict and had good pulsations distally in the extremities.