**XLIF male L2-3**

OPERATIVE PROCEDURE

Preoperative diagnosis: Degenerative spondylolisthesis with severe disc height loss and degenerative arthritis at L2-3 with severe L2-3 radicular pain.

Postoperative diagnosis: Degenerative spondylolisthesis with severe disc height loss and degenerative arthritis at L2-3 with severe L2-3 radicular pain.

Surgeon Dr. Amit Bhandarkar M.D.

Asst: none

Complications: none

Specimens: none

Blood loss 50 mL

Procedure #1 Anterior lumbar interbody fusion with transpsoas approach

Procedure #2 Placement of biomechanical interbody device at L2-3

Procedure #3 Placement of percutaneous posterior pedicle instrumentation L2-3

Procedure #4 Use of bone allograft

Procedure #5 Use of C-arm imaging for localization navigation and placement of implants as well as final AP and lateral images.

Procedure # Facetal decortication and fusion bilaterally at L2-3

Preoperative area : All the risks of the procedures and the steps involved were again outlined in details patient gave us infromed consent to proceed with the procedure.

Operative procedure

The patient was taken to the operative suite and was placed in a lateral position on the operating room table and was prepped and draped sterilely. After anesthesia induction and site and marked verification timeout was performed. We then brought the C-arm in to localize and mapped out our incision. Patient was positioned in a lateral position with left side up patient had convexity of the spine on the left side and hence it was decided to approach from the left side. I marked the incision on the left side below the 12 th rib. I dissected sharply down to the skin and subcutaneous tissue to the muscular layer which was external oblique. The abdominal muscles were then dissected bluntly taking care not to damage any cutaneous nerves. The muscles were split in the direction of the fibers.

The transverse abdominis muscle was then divided trasvesly and the transversalis fascia was then incised cleanly. the retroperitoneal space was then entered and the contents were then bluntly dissected. Further blunt dissection was carried out to the reached the transverse process of the L2 vertebra. A Deaver retractor was then put in and the retroperitoneal contents retracted medially so as to gain access to the spine. We then visualized psoas fascia which was bluntly dissected to enter the psoas muscle and slowly under vision it was split between the fibers so as to reach the disc space. The first dilator was then used and its location was confirmed under C-arm guidance at L2-3 disc place. After that was completed I did perform a neuro testing as we dilated to our final dilator and placed a retractor into place. We had a safe EMG response at all times. I did gently retract and then directly visualize the disc and saw that there were no nerve elements. I also used a probe to probe the nerve and there was nothing demonstrative any kind of significant EMG activity there either. We then inserted posterior Shim after checking the C-arm and I expanded the retractor in the front and back direction and also expanding it in all directions. I then removed the L2-3 disc using Cobbs pituitaries and curettes to get good bone surface for fusion. I also released the annulus on the contralateral side. I then sized to an appropriate size which was a cage size 18 into 50 mm with 0 degrees of lordosis. Once the cage was sized up. I then packed it with 10 cc of bone marrow graft material and also we then implanted the cage device into the L2-3 disc space seating into a good depth.

 The C arm images showed cage was sitting snugly fit and also reduce the spondylolisthesis and the scoliosis little bit. The wound was then locally infiltrated with a mix of Marcaine and Depo-Medrol and Toradol we had irrigated the wound multiple times during the procedure and at the conclusion of the procedure with copious amount of saline. After completing irrigation, we removed retractor there was no substantial bleeding noted at all. Retractors were then removed and I closed the wound in layers followed by skin glue and sterile dressing. The patient told the procedure very well he was then transferred on a gurney and then the positioning him prone on an on a Wilson frame again for percutaneous posterior instrumentation.

Posterior percutaneous pedicle instrumentation was carried out using C-arm guidance and neuromonitoring. The screws were introduced into the pedicle using C-arm guidance after confirming the K wires initially placed and then subsequently tapped and fared good on neuromonitoring.We then inserted the osteotome and placed it at the L2-3 face which was decorticated and after whcih bone graft which was allograft was layed over it. Rods were then put in a minimally invasive technique and the instrumentation was then compressed. We placed 2 incisions which was thoroughly irrigated and infiltrated with a mix of Marcaine and Depo-Medrol and Toradol. The wound was closed in layers followed by skin glue and a sterile dressing was then applied

X-ray report

 AP and lateral images at the conclusion of the procedure demonstrative good position of all implants excellent cage size good restoration of disc height. There was reduction in some degree of spondylolisthesis also some degree of a scoliosis that he has and there was good position of all screws.