**Posterior part 360 degree fusion**

OPERATIVE PROCEDURE

Preoperative diagnosis: Patient underwent the first part of the surgery for L3-4 spondylolisthesis with synovial cyst on the right side one week prior where she had L3-4 XLIF. Patient had mild superior endplate collapse post procedure. Patient for second part of the procedure which is facetal fusion and posterior instrumentation.

Postoperative Diagnosis: Patient underwent the first part of the surgery for L3-4 spondylolisthesis with synovial cyst on the right side one week prior where she had L3-4 XLIF. Patient had mild superior endplate collapse post procedure. Patient for second part of the procedure which is facetal fusion and posterior instrumentation.

Surgeon a meat by Dr. Amit Bhandarkar M.D.

Asst: none

Complications: none

Specimens: none

Blood loss: minimal

Procedure #1 Placement of percutaneous posterior pedicle instrumentation L3-4

Procedure #2 Use of bone allograft

Proceure #3Facetal fusion and posterolateral fusion.

Procedure #4 Use of C-arm imaging for localization navigation and placement of implants as well as final AP and lateral images.

Procedure#5 Use of transpedicular bone grafting for reconstituting height of the superior endplate of L4

Implants: Nuvasive Screws

Preoperative area: In the preop area we extensively discussed the risk involved with the procedure. Well informed written consent was then obtained.

Operative procedure

The patient was taken to the operative suit and was placed in a prone posotion. The lumbar spine was prepped and draped. Time out was then performed. Carm was then used to localize the leve. While taking the lateral view it was noted that the graft had sunken and settled a by few mm in the superior endplate of the L4 vertebrae especially toworards the left side.

It was decided to proceed with pedciular bone grafting. Initially right L4 and bilateral L3 screws were inserted using C-arm guidance and neuromonitoring. We took two paraspinal inciscions about 1.5 inch in lenght the fasicia was incised and then blunt dissection of the paraspinal muscles was carried out till the Transverse process and L3-4 facet joints. The facet joints were then nibbler and a osteotome to violate the articular surface to promote fusion. We packed the posterolateral gutter with bone graft to promote fusion. 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. Rods were then put in a minimally invasive technique and the instrumentation was not furhter compreessed. The rod was first put on the right side and the wire on the left L4 screw was threaded with the Jamshedi needle and bone marrow was harvested. The bone marrow was then mixed with the allograft so as to have a nice consistensy. Then about 2 ml of this putty was then inserted in the vertebral body under c arm guidance. The guide wire was then reinserted at L4 on the left side and larger screw was introduced and rod was then inserted minmallay invasive and tigheted. The incisions which was thoroughly irrigated and infiltrated with a mix of Marcaine and Depo-Medrol. the wound was closed in layers followed by skin glue and a sterile dressing was then applied.

Patient tolerated the procedure well and was taken to the recovery with tolerable amount of her pain where her pain was controlled further with Morphine. She was neurointact. SHe was further stabilized the recovery and was then transferred to SCU.