



Case Review:

31 year old female
presented with broken
hardware status post
Dynesys motion sparing
surgery.

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Patient History

- 31-year-old female
- She had a "motion-sparing" device placed for degenerative disk disease in an off label application.
- According to the patient, she had in situ fusion. The patient was told she had a motion-sparing device but fusion was done anyway. The patient then went on to hardware failure. She had increasing low back pain and never got better from the index surgery. She came to me with failed hardware, broken screws and obvious pseudarthrosis. The patient has a very difficult history and this complicates the overwhelming picture of low back pain, failed instrumentation, Dynesys use with in situ fusion and unclear application of technology.

Pre-op X-rays



Indications for Surgery

1. Status post failed Dynesys "motion-sparing instrumentation" for degenerative disk disease and low back pain, L5 to S1.
2. Attempted in situ fusion, status post Dynesys L4 to S1.
3. Now with failed hardware, Dynesys fractured pedicle screw and pseudoarthrosis at L4-5 and L5-S1 bilaterally.
4. Severe low back pain and radiculopathy with impending motor and sensory deficit.
5. Significant substance issues, including past history of narcotic and recreational drug use.

Surgical Strategy

- Removal of retained Dynesys instrumentation, L4 to S1.
- Reinstrumentation L4 to S1.
- Posterior spinal fusion, L4 to S1, with a combination of locally harvested autogenous graft and allograft.
- Repair of multiple level pseudarthrosis, L4-5 and L-5S1.
- Intraoperative neuronavigation with O-arm Treon interpretation.

Surgical Strategy – cont.

- Abdominoretroperitoneal approach to lumbosacral spine.
- Radical discectomy, L4-5, L5-S1.
- Interbody device, PEEK, L4-5, L5-S1 with rhBMP.
- Anterior screw fixation, L4-5, L5-S1.
- Reconstruction of fractional lumbar kyphosis, L4-S1.

Post-op Films



Pre-Op/Post-op Comparison

