



Case Review:

Adult Idiopathic Scoliosis and
Isthmic Spondylolisthesis,
treated with a Posterior Spinal
Fusion from T2 to Pelvis

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Pre-op X-rays



- 50-year-old female
- Adult Idiopathic Scoliosis, with a triple major curve. On physical examination, she has right thoracic fullness, left lumbar fullness
- Grade I spondylolisthesis L5-S1
- Right shoulder depression due to the high thoracic curve.
- Low back pain
- Leg pain

Indications for Surgery

- Adult idiopathic scoliosis, triple major curve.
- Grade I spondylolisthesis L5/S1.
- Thoracic kyphosis.
- Severe back and lower extremity pain due to the above diagnoses.
- Failed conservative therapy.
- Multiple level degeneration causing decompensation involvement necessitating anterior spinal fusion and multiple level osteotomies posteriorly.
- Asymmetric slipped lateral listhesis L4-5.

Surgical Strategy

1. Segmental spinal instrumentation of thoracic 2 to the pelvis, a 16 level with Medtronic 5.5 stainless steel pedicle screw rod construct.
2. Pelvic instrumentation with exposure of iliac crest on the right separately.
3. Intralaminar laminotomy for recess stenosis under the microscope and neural foraminotomy L1-2, L2-3, L3-4, L4-5, L5-S1 bilaterally with lateral recess decompression.
4. Spinal osteotomy, 2 column, with mobilization for rigid adult idiopathic scoliosis, thoracic 5 to thoracic 12, and lumbar 1 to lumbar 4-5. This is 10 levels of radical facetectomy and osteotomy.
5. Posterior spinal fusion using combination of locally harvested autogenous bone and allograft T2 to the pelvis.
6. Intraoperative somatosensory evoked potentials and motor-evoked potentials interpretation.
7. Intraoperative fluoroscopy.

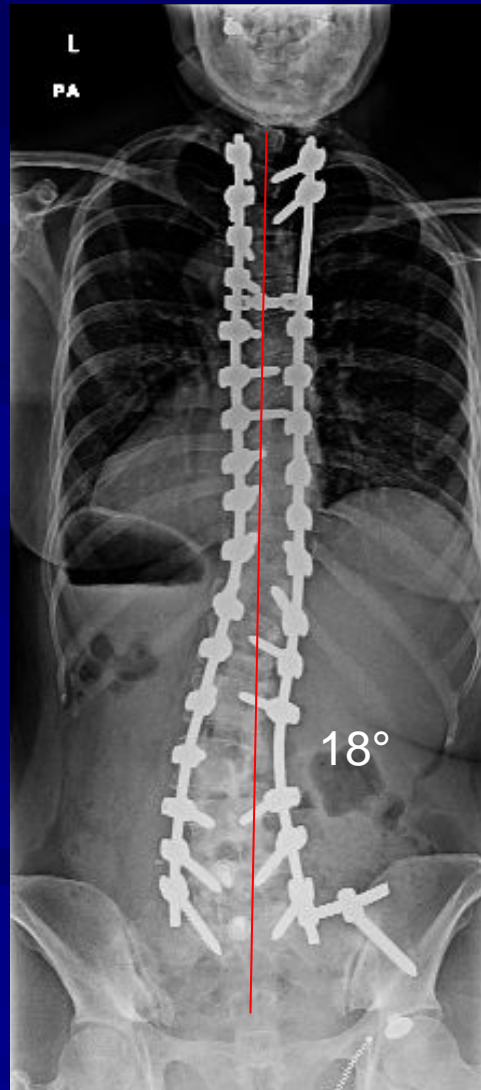
Post-Op Films



One year post-op the patient is doing very well. She is highly functional and working.

The patient is happy with her symptomatic and cosmetic outcome.

Pre-Op/Post-op Comparison



The patient has improved balance in the coronal plane.

Pre-Op/Post-op Comparison



The patient is well balanced in the sagittal plane. Her head is balanced over her hips.