



Case Review:

Progressive Adult Idiopathic
Scoliosis with a 75° Curve

Robert S Pashman, MD
Scoliosis and Spinal Deformity Surgery
www.eSpine.com

Patient History

- 19-year-old female
- Type 1AN right thoracic curve
- Curve has progressed significantly from 2003 originally measured at 50° , now is 75° curve with depression of the left shoulder, no compensatory proximal curve. This is a pure thoracic scoliosis.
- This curve is highly rotated causing significant cosmetic deformity.
- She has a significant 3-cm right rib hump but no left flank fullness.
- The patient is flexible on right-side bending.
- Neurologically intact.
- She had significant pain mid thoracic spine in Poland, and had a CT scan. The CT scan to my observation did not show a significant abnormality; this is an idiopathic curve.

Pre-op X-rays



The patient's curvature had increased 21° over a four year period.

When she presented to our office, she was experiencing significant thoracic pain.

Bending X-rays



Bending films show that the patient's curve is rigid and will require osteotomies for correction.

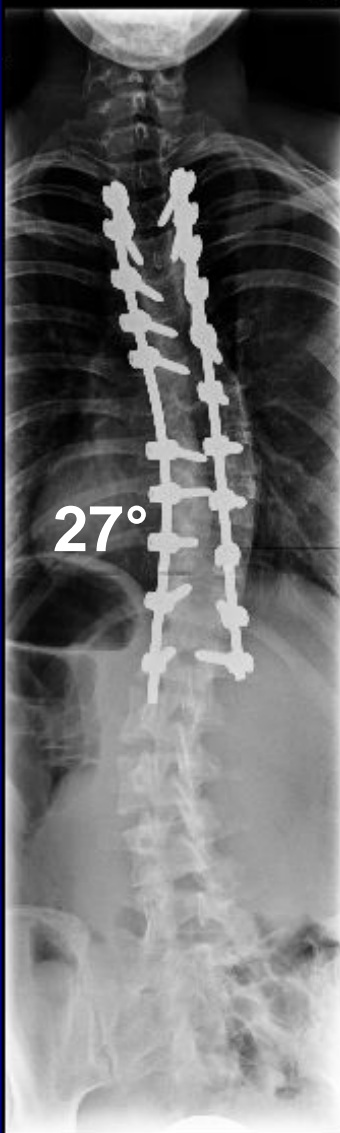
Indications for Surgery

- A 75° right Type 1BN progressive adult idiopathic scoliosis.
- Thoracolumbar kyphosis.
- Rigid deformity, with significant cosmetic deformity and rib hump.
- Failure of conservative therapy

Surgical Strategy

- Segmental spinal instrumentation, thoracic 3-lumbar 1, using the CD Legacy quarter-inch stainless steel pedicle screw-rod construct.
- Posterior spinal fusion using locally harvested autogenous bone from thoracoplasty and local bone T3-L2.
- Spinal osteotomy for mobilization of rigid scoliosis, thoracic 4-5, 5-6, 6-7, 7-8, and 8-9; these are Ponte osteotomies.
- Thoracoplasty with removal of hemi-chest wall.
- Ribs.
- Intraoperative somatosensory evoked potential, motor evoked potentials.
- Intraoperative fluoroscopy.

Post-Op Films



The spine was left in a balanced position, in both planes.

The lumbar spine did not need to be fused, preserving full motion of the spine.

Note the balance in Frontal and Sagittal planes.

Pre-Op/Post-op Comparison



A 43° correction was obtained. The patient has done remarkably well following surgery, and was happy to regain some height. She has resumed her preoperative activities, with all restrictions lifted at 12 months post-operatively.

Pre-Op/Post-op Comparison

