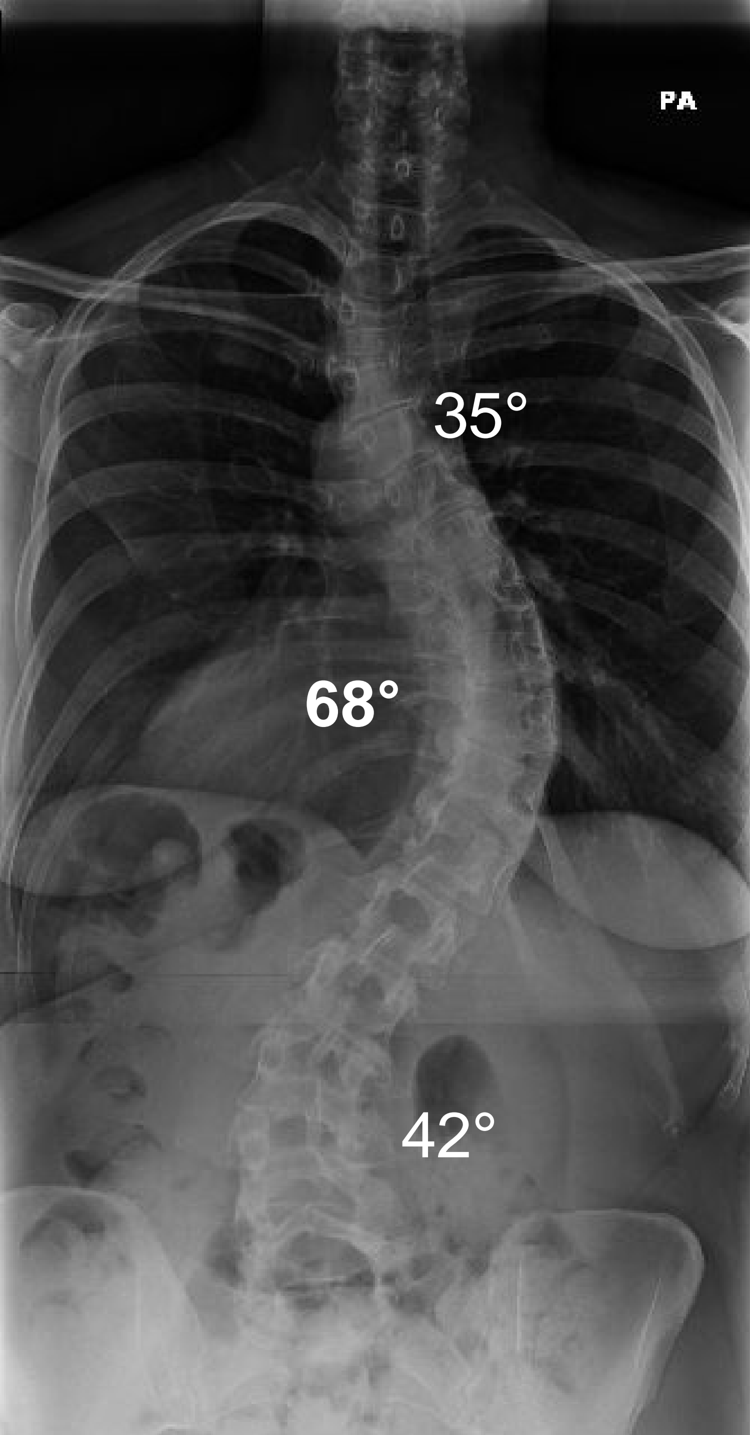


Case Review:

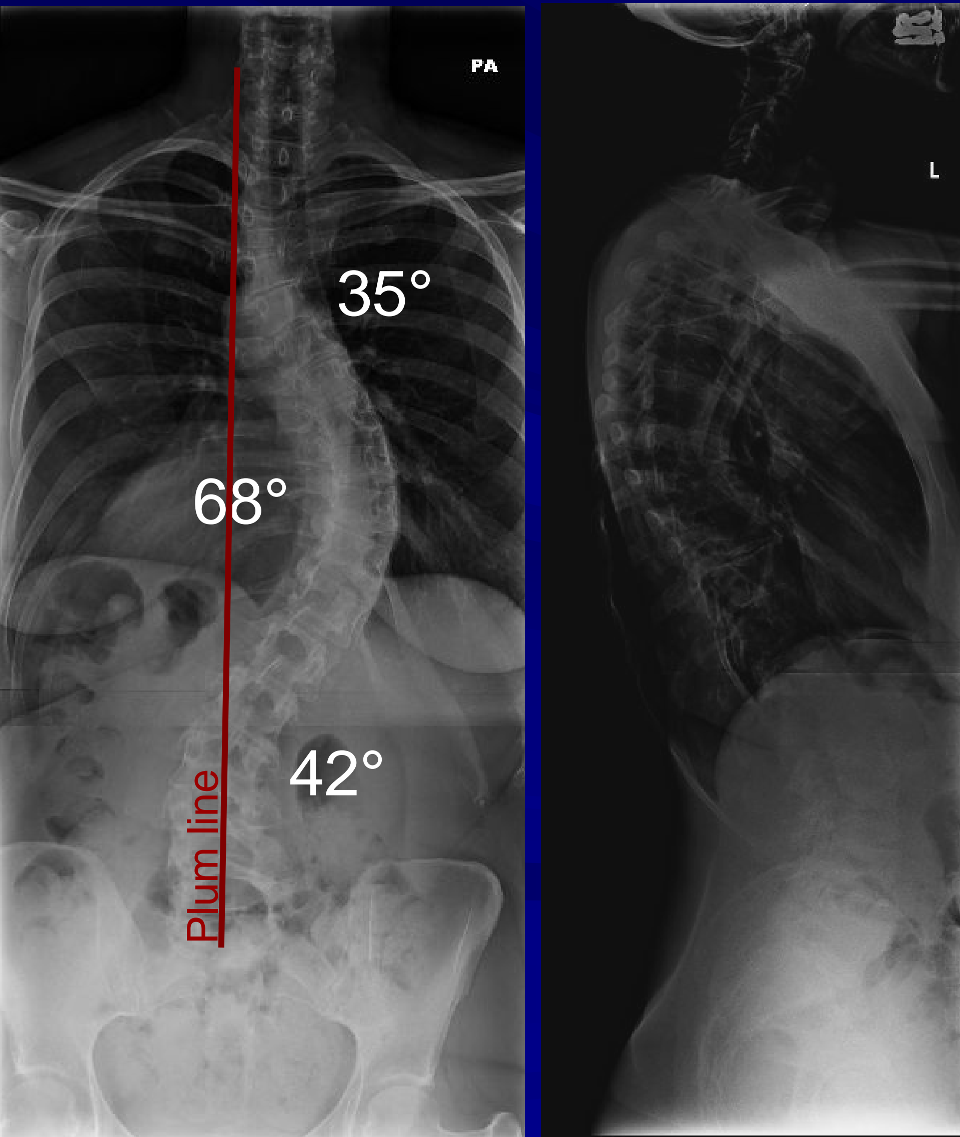
Adult Idiopathic Scoliosis, with a 68° curvature.

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

Patient History

- 59-year-old female, has known adolescent idiopathic scoliosis that has progressed into adult idiopathic scoliosis.
- She had some neck pain for a year, mid-back pain and low back pain for 25 years, on- and-off numbness of the hands and the right hip. She denies tingling. No acupuncture, PT or injections. Chiropractic temporarily helped.
- She has global truncal shift to the right. This is associated with significant the right-sided thoracic curvature and a 3-cm right rib hump. She does plum centrally, maybe somewhat to the right but otherwise her balance is good in the frontal and sagittal plane and neurologically she is intact. The curvatures of her posterior spine are obvious by direct examination of her back.

Pre-op X-rays



The 36 x 14 x-rays show that the patient has a primary structural thoracic curve measuring 68° with an upper thoracic curve of 35°. Her shoulders are level, but this is probably a structural upper thoracic curve just based on the fact that it is adult idiopathic curve. She plumb lines slightly to the right.

She has a 42°, highly rotated lumbar curve and although this is compensatory, it probably came secondarily structural.

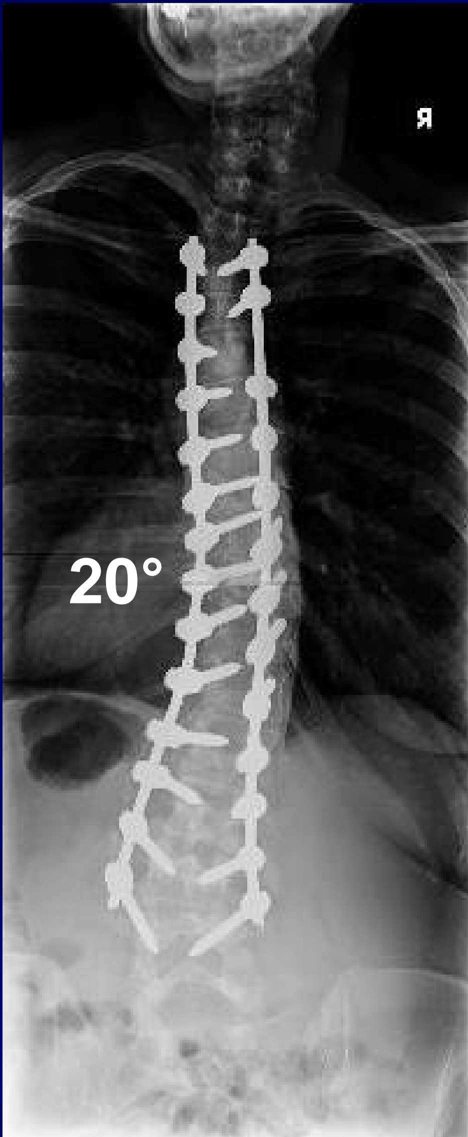
Indications for Surgery

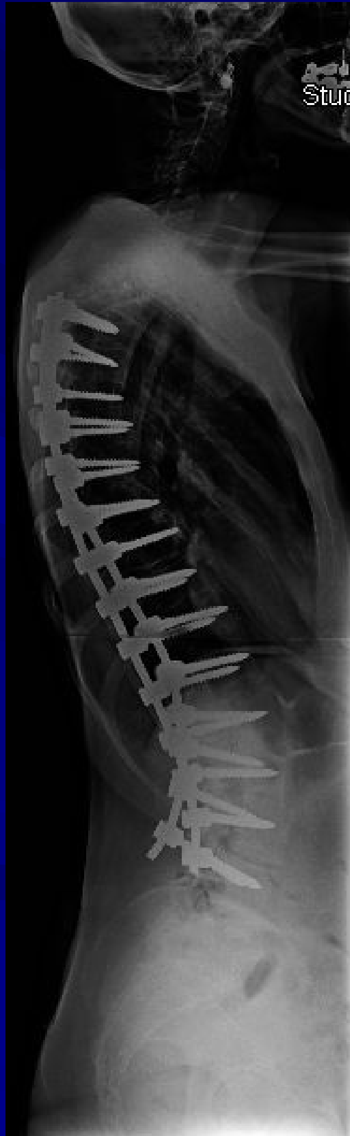
- Rigid Adult Idiopathic Scoliosis 68° thoracic, 42° lumbar with significant rotation and spinal deformity.
- Rigid progressive deformity with decompensation of coronal and sagittal plane necessitating multiple level osteotomy.
- Progressive upper low back pain and lower back pain, failed conservative therapy.
- Radiculopathy secondary to spinal stenosis and lateral recess stenosis. Facet arthropathy lumbar 1 through lumbar 4 bilaterally.
- Multiple comorbidities with increased blood pressure depression.

Surgical Strategy

- Thoracic 3 to lumbar 4 segmental spinal instrumentation using EBI 5.5 stainless steel screw rod construct.
- Posterior spinal fusion thoracic 3 to lumbar 4 using locally harvested autogenous bone and RHBMP.
- Multiple level spinal osteotomy for mobilization of the rigid spinal deformity, thoracic 5 to lumbar 3, this is 10 levels including bilateral laminectomy, ligamentum flavum removal and facet removal.
- Interlaminar laminectomies, facetectomy and lateral recess release for spinal canal decompression for radiculopathy, lumbar 1 through lumbar 4 bilaterally using loop magnification and fiberoptic illumination.
- Local bone harvesting.
- Intraoperative SSEP motor evoked potential interpretation.
- Intraoperative fluoroscopic interpretation.

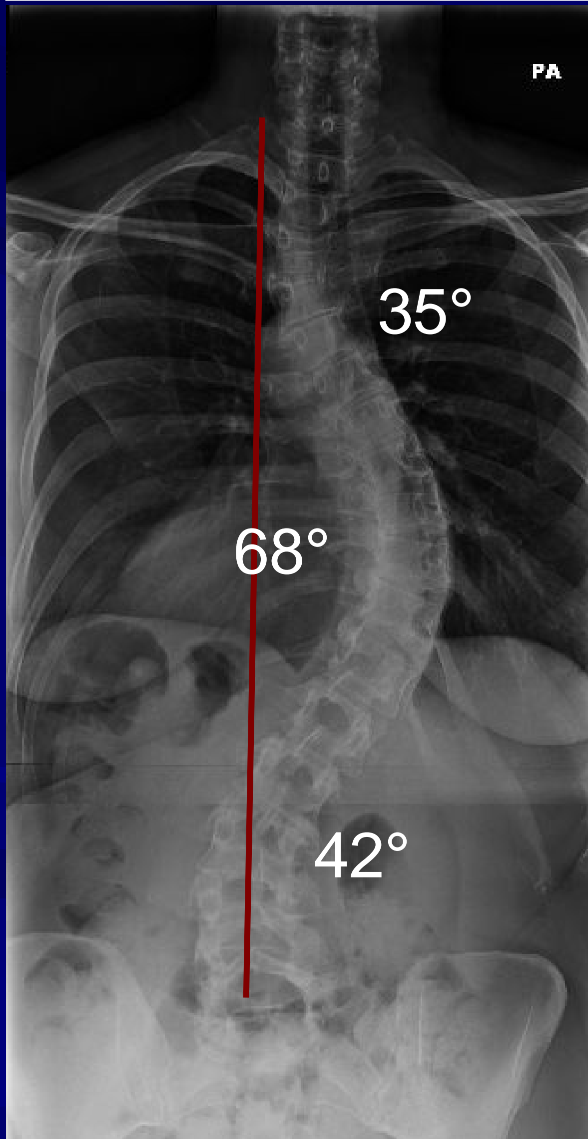
Post-Op Films

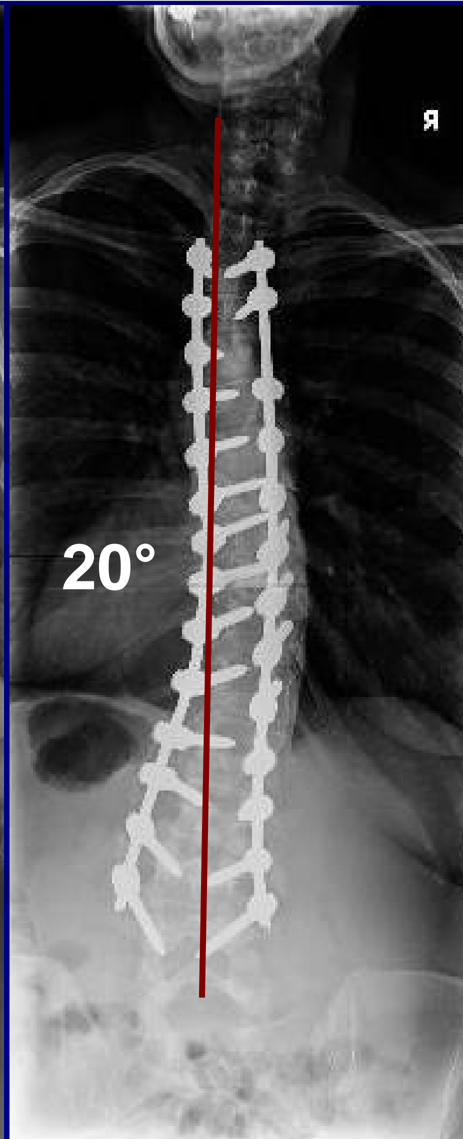




She is doing well post operatively and is happy with the surgical outcome.

Pre-Op/Post-op Comparison





The patient's curvature was corrected by 48°. As importantly, her balance has been improved.

Pre-Op/Post-op Comparison