

Severe stenosis and level 1 spondylolisthesis L4-L5

Posted by luskra - 26 Apr 2013 12:27

As many others have said, thank you for this comprehensive web site for patients to explore and learn.

I am a 52 yo male in good health and fitness. Recently widowed and raising a 12yo.

In the Spring of 2009 I was struggling with sciatica on my right side. An x-ray report had the following findings: Grade 1 retrolisthesis of L4 relative to L5 and possible bilateral spondylolysis. Nocompression fracture. Mimimal marginal osteophytes at L2-L5.

Not long after that report, my sciatica vanished. Life resumed.

Fast forward to Christmas 2011. I wrench my back by lifting improperly and get terrible lower back pain, mostly on the left. I commence PT, and by March of 2012 the back pain is gone. But I have residual tingling and numbness in my left inner thigh and above my left groin. Also, a numb spot develops on the bottom of my left foot below the middle toes.

June 2012: I see a neurologist who does a nerve test and says I have slightly diminished function on my left side. He orders an MRI with the following findings: Grade 1 anterolisthesis of L4 on L5 of 6mm. No compression fractures. No suggestion of metastatic disease. There are questionable L4 lysis deformities. There is minimal L4-L5 disc space narrowing and decrease in L3-L5 disc space signal characteristics. Conus ends normally.

L1-L2: Minimal disc bulge, no central stenosis. Far left lateral disc herniation with mild narrowing of the far lateral aspect of the left foramen abutting the exiting L1 root.

L2-L3: No disc herniations, the foramen are patent.

L3-L4: Disc bulge with mild sac compression, no central stenosis and mild bilateral foramina narrowing. Mild bilateral facet degenerative changes.

L4-L5: Severe central stenosis due to a pseudo-disc bulge and ligamentum flavum and facet hypertrophic changes. There is moderate to severe left and right foramina narrowing likely compressing the exiting L4 nerve roots. In the far lateral aspect of the right foramen extending into the soft tissues, there is a 1.1 cm x 5 mm T2 hyper intense structure that is likely fluid, possibly related to compression of a usually prominent dural nerve root sleeve. Along the posterior aspect of the left facet complex, there is a 6 mm synovial cyst.

L5-S1: Mild bilateral facet degenerative changes.

But despite the report, I'm doing really well. I hiked the Rockies for the first time in July with no problems.

Fall 2012: Sciatica on my right side returns. If I try to power through the sciatica, it feels like a knife in my groin. Sitting or squatting usually resolves the pain allowing me to continue walking or standing. A series of epidural steroid injections provide only a day or two of relief. On the left side, the numbness and tingling continues on the inner thigh. Numbness at bottom of left foot increases slightly. I continue doing the PT exercises I learned at start of year. No back pain, can sit and sleep comfortably

Winter 2013: I am increasingly home bound. Cannot stand or walk for more than 5-15 minutes. I begin to interview spine surgeons. More epidurals, but no lasting relief. NSAID therapy likewise does nothing. I begin swimming laps at the public pool, it gets me fit but no relief for the sciatica. Continue with PT exercises. Still no back pain, can sit and sleep very comfortably.

April 2013: I have seen both an orthopedic surgeon and a neurosurgeon. Both say I need a laminectomy and level 1 fusion at L4-L5. Both say there is no hurry to decide. The neuro wants to go in with MIS from the side with one set of screws, the ortho wants open me up from the back with two sets of screws. Again, I have no back pain, can sit and sleep very comfortably.

Question 1) In my MRI report I am unable to understand if the facet joints are causing the problem. Is the "synovial cyst" the indicator of degeneration? If it could be drained and shrunk, could that improve my condition?

Question 2) I feel no instability, and can rotate and bend backwards with no instant pain. The report indicates minimal disc space narrowing. A flexion X-ray confirms the level 1 spondy. I assume the pseudo disc bulge is a major player here. Is that bulge why fusion is recommended?

Question 3) Do I go minimally with the neuro or the old fashioned way with the ortho. I liked both, and both came recommended from other docs.

Question 4) Should I do this sooner rather than later for best results?

My Oswestry score is 28 which seems pretty low in the scheme of things. As a single dad to a minor, I am loathe to have such a serious surgery, but my quality of life is diminished due to my inability to stand or walk for extended periods.

I know I've posted a lot of info. Thanks you.

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Re: Severe stenosis and level 1 spondylolisthesis L4-L5

Posted by Dr. Corenman - 28 Apr 2013 06:59

You have classic findings for an L4-5 degenerative spondylolisthesis with spinal stenosis and foraminal stenosis. You most likely do not have pars fractures as there are three findings that point to the slip being degenerative.

First is central spinal stenosis. If you had pars fractures and a slip, the central canal would get larger, not narrower. The second is that pars fractures unload the facets so these facets are normally pristine and not degenerative. Degenerative facets lead to the conclusion of the pars being intact. The third is that synovial or ganglion cysts do not occur with isthmic slips and typically occur with degenerative slips due to the degenerative facets.

This condition is covered under the lumbar section and degenerative spondylolisthesis/ ganglion cysts and lumbar foraminal stenosis.

The reason you cannot stand or walk any significant distance is that the central canal and foramen narrow with standing and enlarge with sitting or lying down. The degenerative narrowing has become so severe that any prolonged upright posture causes nerve compression and pain.

You have to understand surgery and "old-fashioned" vs. "new wave". MIS or "minimally invasive" is not really minimally invasive. First, for a fusion, the MIS is less successful for fusion rate and has a higher complication rate. When the surgeon is providing a fusion, both sides of the spine need to be addressed. The MIS is an "attempt" to save the small muscles of the fused segment. This is a silly goal as these muscles (multifidi and transversals) will not be functional when the segment is fused.

If you add up the total incision length from a MIS vs a minimal central exposure, you will find the incision length is the same. If the MIS is performed on both sides, the incision will be almost twice the length. Even though it really does not matter, cosmetically, the central incision looks much better.

In addition, MIS does not address the opposite side where fusion should also occur (the lateral facet and transverse process). In my research, this is the area that fuses first. Avoiding this area reduces the chance of solid fusion.

Also, screws need to stabilize both sides of the spine to prevent motion of the segment. One sided screws only stabilize half the segment and allows significant motion which impedes motion.

Typically, a TLIF is needed for a degenerative slip with foraminal stenosis. See the section on TLIF for a full understanding.

Dr. Corenman

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