L-5 RADICULOPATHY FROM LARGE L4/5 EXTRUSION

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Presented at Cox Part 3, Tempe, Arizona

HISTORY AND CHIEF COMPLAINT

- 8/11/11
- 53 YEAR OLD FEMALE WITH RIGHT – SIDED LOWER BACK PAIN RADIATING TO THE GROIN FOR THE PREVIOUS 2 MONTHS, WORSENED OVER THE WEEKEND AFTER SHOPPING TRIP
- SITTING AGGRAVATES THE PAIN.
- PATIENT DENIES ANY LOWER EXTREMITY SYMPTOMS.

EXAM FINDINGS

- + KEMPS
- NEGATIVE STRAIGHT LEG RAISE
- FULL STANDING LUMBAR RANGE OF MOTION
- HEEL AND TOE WALK NORMAL
- JOINT FIXATION L4/5 LEVEL
- PARASPINAL MUSCLE TENDERNESS IN LUMBAR REGION L2-5 LEVELS

DIAGNOSIS AND TREATMENT

- ACUTE LUMBAR STRAIN/SPRAIN
- COX DECOMPRESSION PROTOCOL 1 WAS INITIATED WITH INTERFERENTIAL CURRENT IN SIDELYING POSITION AFTER DECOMPRESSION.
- PROTOCOL 1 AND L-4 CONTACT DUE TO THE TROUBLE SITTING ARE APPLIED.

RESPONSE

- THE PATIENT WAS TREATED FOUR TIMES OVER THE NEXT WEEK AND WAS 80% BETTER WHEN SHE LEFT FOR VACATION TO MICHIGAN.
- THE TRIP WENT WELL, AND SHE TOLERATED THE DRIVING AND WALKING WITHOUT MUCH TROUBLE.
- THE DAY SHE RETURNED, SHE WAS DOING SOME WEEDING AND FELT SHARP EXACERBATION WITH RIGHT LATERAL THIGH PAIN AND NUMBNESS DOWN TO THE RIGHT FOOT IN L-5 DISTRIBUTION.

EXAMINATION

- PATIENT HAD DIFFICULTY STANDING WITHOUT SEVERE PAIN, WORST IN RIGHT BUTTOCKS AND LATERAL HAMSTRING, NUMBNESS IN RIGHT LEG IF SHE STANDS FOR EVEN A FEW MINUTES.
- SLR WAS POSITIVE.
- DORSIFLEXION AND PLANTAR FLEXION STRENGTH WAS 5/5 IN PRONE POSITION.

PLAN OF CARE

- PATIENT WAS TREATED WITH PROTOCOL 1 AND A L4 CONTACT WITH INTEREFERENTAIL CURRENT AND ICE, TOLERATED WELL.
- SHE SAW HER FAMILY DOCTOR SAME DAY AND WAS ADMINISTERED A CORTISONE SHOT AND PAIN MEDICATIONS.
- MRI WAS SET UP FOR 9/2/2011.

MRI FINDINGS

- **L3/4:** DISC BULGE, FACET ARTHROPTHY AND THICKENING OF LIGAMENTUM FLAVUM, NO SIGNIFICSNT STENOSIS OR NARROWING
- **L4/5:** RIGHT LATERAL DISC EXTRUSION, MEASURES 7X10X13MM, EXTRUSION AND SUSPECTED FREE DISC FRAGMENT AND DEMONSTRATES INFERIOR MIGRATION ALONG POSTERIOR BORDER OF L5 RESULTING IN SEVERE EFFACEMENT OF RIGHT LATERAL RECESS AND POSTERIOR DISPLACEMENT OF RIGHT L5 NERVE ROOTS WITHIN RECESS, BILATERAL FACET ARTHROPATHY PRESENT.

MRI-CONTINUED

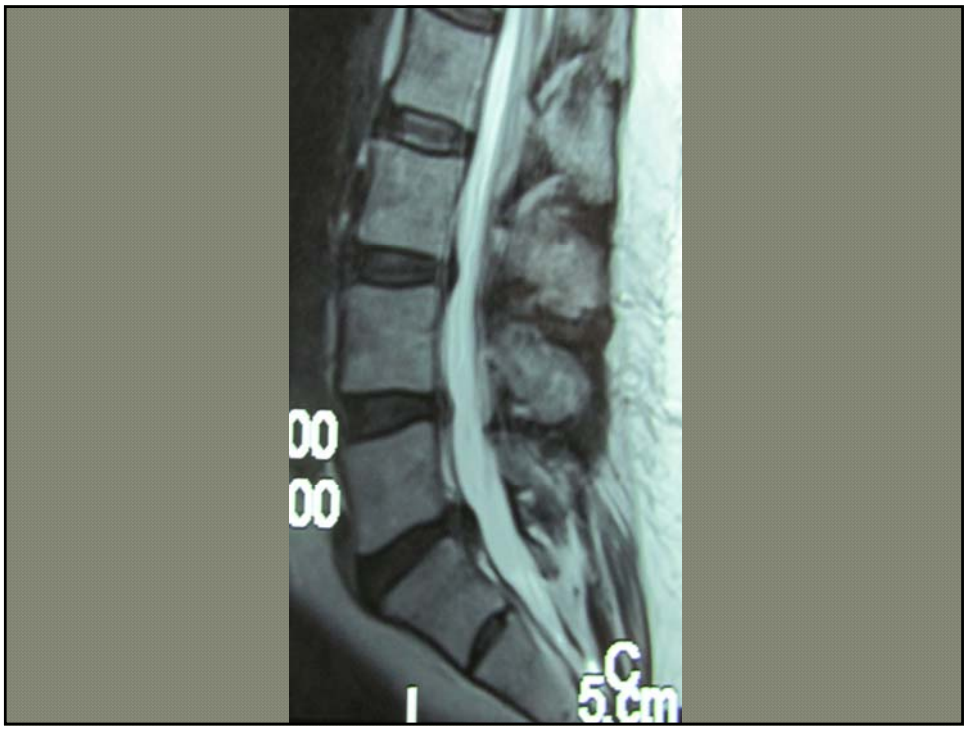
- **L5/S1:** DISC BULGE AND CENTRAL DISC PROTRUSION, MILD EFFACEMENT OF LATERAL RECESSES, BILATERAL FACET ARTHROPATHY, SEVERE RIGHT FORAMINAL NARROWING

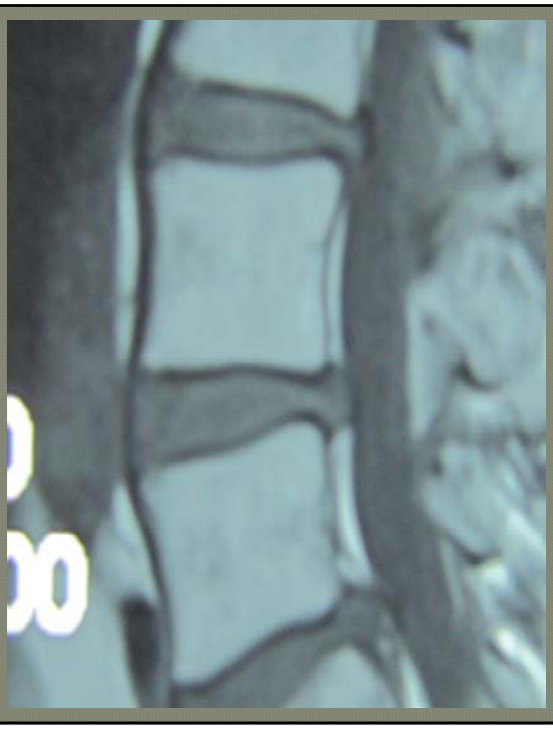
TREATMENT

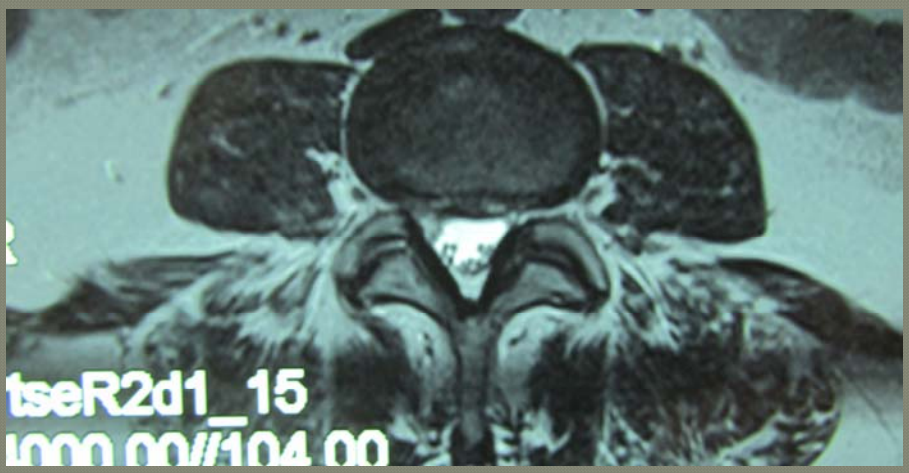
- 4/5 WEAKNESS WAS NOTED IN DORSIFLEXION OF RIGHT FOOT ON 3RD VISIT.
- SHE WAS EXPERIENCING SOME CENTRALIZATION OF THE PAIN ALREADY.
- CONSULTATION WAS SET UP WITH NEUROSURGEON AS SHE CONTINUED CARE.

MRI

Images



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NEUROSURGEON

- THE EXAM AGREED THAT THERE IS SOME WEAKNESS PRESENT IN RIGHT DORSIFLEXION GRADED 4/5 SOME SENSORY DEFICITS RIGHT LATERAL CALF.
- HE GAVE HER OPTION OF EPIDURAL INJECTIONS OR TWO LEVEL MICRODISCECTOMY.
- THE PATIENT WAS NOT SATISFIED WITH HER VISIT AND REQUESTED TO SEE A LOCAL ORTHOPEDIC SURGEON WHO SPECIALIZES IN SPINE.

ORTHOPEDIC SPINE SPECIALIST

- WE CONTINUED CARE AS WE WAITED FOR THIS CONSULT. HER PAIN WAS CENTRALIZING TO BUTTOCKS AND WAS 50% IMPROVED APPROXIMATELY 3 WEEKS INTO CARE.
- HE ADDED LUMBAR FLEXION / EXTENSION VIEWS WHICH SHOWED NO ANTERO OR RETROLISTHESIS.
- HIS OPINION WAS MICRODISCECTOMY WOULD NOT BE OF VALUE AND WOULD RECOMMEND FUSION L4 THRU S1.
- SURGERY WAS SCHEDULED FOR 5 WEEKS LATER.

PROGRESS

- 9/27/11-ONE MONTH INTO CARE, PATIENT IS UP TO WALKING ½ MILE PER DAY AND BUTTOCKS PAIN IS DOWN TO 3/10 FROM 10/10 INITIALLY, PATIENT WANTS TO RETURN TO WORK HALF DAYS .
- TINGLING IN RIGHT FOOT ONLY HAPPENS IF SHE IS ON FEET FOR TOO LONG.
- PATIENT IS STILL WANTING TO GO AHEAD WITH SURGERY TO "FIX PROBLEM."

DR. COX

- I WAS CONVINCED WITH THE PROGRESS SHE WAS MAKING THAT FUSION WAS NOT ADVISABLE.
- I SUGGESTED SHE SEE DR. COX FOR EXAM AND CONSULT.
- THIS WAS SETUP FOR 10/20/11.
- DR. COX FOUND DORSIFLEXION STRENGTH TO BE 4/5 WITH SOME HYPERESTHESIA OF L5 AND S1.
- DERMATOMES SLR NOW NEGATIVE

DR. COX

- MOST VALUABLE LESSON FOR THIS PATIENT WAS THAT THERE WAS NO CURE FOR THIS PROBLEM AND THAT SURGERY WOULD NOT NECESSARILY "FIX" THIS PROBLEM.
- DR. COX EMPHASIZED THE ADVERSE EFFECTS ON L3 FROM A POSSIBLE FUSION AND THAT THIS SEGMENT ALREADY WAS SHOWING PROBLEMS ON MRI.

CONCLUSION

- THE PATIENT RETURNED FROM THIS VISIT WITH RESOLVE TO REHAB STRONGLY AND CONTINUE CONSERVATIVE CARE. SHE CANCELLED THE FUSION SURGERY.
- PATIENT WENT BACK TO WORK FULL-TIME ON 11/9/11 AND REPORTED NO BUTTOCKS OR LEG PAIN. THE TINGLING SENSATION IS GONE.

CONCLUSION

- SHE STILL EXPERIENCES SOME LOWER BACK FATIGUE AT THE END OF THE WORK DAY.
- SHE IS ON A WALKING PROGRAM AND IS UP TO 2 MILES 5X PER WEEK.
- SHE IS DOING COX EXERCISES #s 1-5.
- HER LAST VISIT WAS ON 1/18/12 AND RATED PAIN LEVELS AT 1 IN BACK AND OCASSIONALLY IN RIGHT BUTTOCKS IF SHE SITS TOO LONG.

CONCLUSION

- THIS IS AN EXAMPLE OF A FREE DISC FRAGMENT.
- DR. COX'S NOTES DISCUSS STUDIES BY IKEDA, KOMORI, AND MCCALL THAT FREE FRAGMENTS ARE BETTER ABSORBED THAN CONTAINED DISC HERNIATIONS, PHAGOCYTES CAN RESORB EXTRUDED FRAGMENTS.

Ikeda: J Spinal Dis 9(2)
Komori: SPINE 21(2)

- Free fragments are better absorbed than contained disc herniations.
- Phagocytes can resorb sequestered or extruded disc herniation fragments.

McCall IW: Lumbar herniated disks. Rad Cl No Amer 2000 38(6)

- Extruded or sequestered discs show macrophage infiltration on histology
- Sequestered disc material resorbs better than contained disc material
- Conservative therapy brings resolution in majority of cases

Thank you.