Barral Institute Case Study

Neural Manipulation – Spinal Stenosis/Low back pain

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CASE STUDY 4

Abstract: a case study of a 69 y.o. female with spinal stenosis with leg pain and low back pain that was greatly improved with techniques of visceral and neural manipulation.

Key Words: Pain, neural manipulation

Diagnosis: Low back pain with production of leg symptoms and spinal stenosis

History: Patient is a 69 y.o. female referred to PT with spinal stenosis and facet arthropathy with pain in her back and down her Rt. leg which began as she worked as a nail technician bending over on Feb. 10, 2017. She presented in PT on 06/10/17 with 3-9/10 level pain in the back and Rt. leg to foot with tingling into toes. Past medical history includes high blood pressure which is controlled with meds, fall and fracture of Rt. humerus a year ago, history of Melanoma 6 years ago with major surgery over sternum to remove and scar tissue over area, Lt. knee sprain 15 years ago, and Achilles tendon rupture while running 2008.

Patient is a very active woman that is still exercising walking 6 miles a day and working 3-4 days a week for 8 hours as a nail technician which involves bending forward. Pain limits her sitting, bending over and with both she has production of symptoms down the Rt. leg to all 5 toes as tingling/numbness and pain.

Objective Assessment:

Posture: Patient stands with a forward head/rounded shoulder posture with Rt. humeral head sheared Ant. and Rt. scapula elevated. There is an increased dorsal kyphosis which is lower in the T spine than normal and reflects the ant. Pull of scar tissue from the Melonoma removal over Ant. sternum in last 1/3. Pelvis is held in a post pelvic tilt and pube is post on Rt. with a Rt. on Rt. sacral torsion and coccyx deviated Rt.

Custom care Connection functional outcome measure is 48% on eval for Lumbar.

Active cervical ROM is limited to 20 degrees on forward bending: 1/3 range on backward; bending, Rot. Rt. and Lt. are limited at 40 degrees and side bending Rt. and Lt. are limited at 20 degrees each.

A Shoulder flexion is limited at 140 degrees on Rt .and 160 degrees on Lt. Seated

Thoracic rotation is 10 degrees to Rt. and 15 degrees to Lt.

Active lumbar motion is limited by dural restriction at 20 degrees and backward bending is 5 degrees. Rt. side bending is minimal with pain limiting motion and to Lt. is 10 degrees. Lateral side glide to Rt. is absent and all lumbar segments are hypomobile Rt>Lt.

Hip P ROM is limited to 90 degrees of flexion bilat; hip extension on Rt. is 5 degrees and lt 0 degrees.

Int. rotation is 10 degrees bilaterally and ext. Rot Rt. is 25 degrees and Lt. is 15 degrees.

Strength: weakness of scapular and core stabilizers as well as pelvic stabilizers in the 3+/5 to 4-/5 range.

Neural tension test: (+) Rt. at 20 degrees on SLR and (+) slump on Rt. Lt. is also positive at 20 degrees on SLR.

Prone knee bend is bilaterally limited at 95 degrees

DTR is normal at knees at 2+/5 and at Achilles on Rt. and Achilles repair changes Lt. DTR at Achilles to decreased response.

Proprioception: Single Leg stance on Rt. is poor and on Lt. is fair with eyes open.

Neural tension is present in Rt. Sciatic, Tibial and into Pudendal with tension at sacrospinous and sacrotuberous ligaments on Rt. Neural tension is also positive in cervical spine and at cranium as found with listening at the vertex and RCPM. Visceral tension positive over ant. Thorax on general listening and local listening.

Treatment: Patient received a total of 12 treatments including treatment to the entire spine and especially the LOM at T spine secondary to Melanoma scar tissue. She received visceral techniques and Thoracic spine and rib cage techniques to improve mobility. She received Neural manipulation techniques to lumbar spine and pelvis as well as cranial and cervical neural

manipulation techniques as guided by listening at the vertex and at RCPM and sacrum. Neural manipulation treatment of lumbar and sacral plexuses as well as into Pudendal and Sciatic to Tibial , common fibular and into medial and lateral plantar nerves is done. Cervical neural tension is treated as well as tensions into the thorax as guided by general listening with improvement in T spine rotation. Patient also received a HEP of neural glides and mobility and stability ex.

Reassessment: Patient improved with treatment with a score of 88% on discharge care connection for lumbar area on 12/28/18. During this time of treatment, patient took a 10 week trip with 0/10 back and leg pain which only returned when she came back to Albuquerque and began to work and stand on concrete at home. ROM of shoulder has improved to 160 degrees. Active cervical ROM: Forward bending is 30 degrees from chest, BB: 1/3 range; Rotation Rt. and Lt. are to 60 degrees; Side bend Rt. and Lt. to 25 degrees each.

Lumbar spine: Patient is able to move forward with less production of symptoms and more mobility before pain in leg begins.

Proprioception: On leg stance is good and she can stand for 10 seconds on each.

Pain: Upon discharge is 0/10 in Rt. leg and 2/10 in back.

Conclusion: Patient responded well to a treatment program of neural manipulation and visceral techniques which significantly decreased her pain in neck and back and obliterated leg symptoms. General and local listening as well as listening at the vertex and RCPM/sacrum guided treatment to appropriate tissues with pain decrease despite findings on diagnostic tests.

Treating Therapist: Linda Keahey-Oberdorfer, PT

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