

Iliopsoas Trigger Point Dry Needling and Myofascial Stretching for Treatment of Lumbar Herniated Disc and Radiculitis: Two Case Reports, An Overview and Throwing Down the Gauntlet

Reuben S. Ingber

Article Info

Article Notes

Received: January 25, 2025

Accepted: February 18, 2025

*Correspondence:

Reuben S. Ingber, Email: ingberr@gmail.com.

©2025 Ingber RS. This article is distributed under the terms of the Creative Commons Attribution 4.0 International License.

Keywords:

Lumbar disc herniation

Myofascial pain syndrome

Trigger point

Conservative treatment

Iliopsoas

Cost of care

Abstract

Research is needed to demonstrate the optimal method (s) utilized in the conservative treatment of lumbar herniated disc. At present, the comment in Judges 21,25, fits “everyone did as they pleased” or as they learned from their mentors. The SPORT study for herniated disc treatment comparing results of surgical care to conservative care, described methodology of conservative care as “the usual care”, and not any specific, organized, scientifically based methodology. Two more cases of lumbar radiculitis caused by a herniated disc, both scheduled for surgery are presented, demonstrating a specific, well defined treatment method and the response to treatment. The recent history of medical management is discussed as is the effect on the cost of care. A challenge to the medical community is issued to help right the wrong.

Ever since the Department of Health issued the *Acute Low Back Pain in Adults. Clinical Practice Guidelines* in 1994¹, the utilization of physical medicine, physical therapy and therapeutic exercises for treatment of lumbar radiculitis (LRad) has been de-emphasized and discouraged. The basis for the authors’ decision was that there were no randomized control trials (RCTs) proving effectiveness of physical therapy, therapeutic exercises and trigger point injections and dry-needling for LRad and not even for lumbar pain. In the *Guidelines*, the authors followed the strict need for RCTs when recommending diagnostic testing such as MRI scans, EMGs, treatments such as NSAIDs and surgery. There was one notable exception, which was lumbar epidural corticosteroid injections (L-ESIs). There were five RCTs found in their search that fit the standards of the *Guidelines*. Two studies showed no effectiveness and three studies effectiveness but for only 2 weeks to 3 months. The concluding recommendations was “L-ESIs are an option for short-term relief of radicular pain after failure of conservative treatment and as a mean of avoiding surgery.” At best, there was only short-term relief. So then why not recommend these other physical treatments, where no studies proved ineffectiveness and they are considerably less invasive, less risky and less costly.

As seen in the cases presented in “Iliopsoas trigger point dry needling and myofascial stretching in the treatment of a series of 6 consecutive patients presenting with acute lumbar radiculitis and foot drop²”, the relief of pain and improved function of the responders were maintained in follow-up for 12-21 months. That is long-term relief of pain and no need for surgery. Two more cases will be presented here, in patients with lumbar herniated disc as demonstrated by L-S spine MRI scans and lumbar radiculitis

demonstrated by absent reflex on the involved side, who were facing impending surgery. They were both successfully treated with dry-needling of the iliopsoas (IP) trigger points and myofascial therapeutic stretching³. There was complete resolution of the sciatic pain, full return to function and return of the involved reflex.

Case report

Case #1. J.S. is 56 year-old salesperson presenting with 6 week complaint of sharp lumbar and L anterior thigh pain. Pain intensity, at worst, was 8/10. Pain was associated with L ant thigh paresthesias, limited sitting up to 30 mins, limited walking with a limp up to 10 blocks and inability to reciprocate stairs. Pain unresponsive to naproxen BID, acupuncture and PT. The physical examination was significant for a left antalgic gait, trigger point tenderness of the iliopsoas and quadratus lumborum, decreased left hip ROM, a left Thomas sign with anterior thigh pain and right Thomas sign with lumbar pain, left hip flexor weakness 4/5 and a decreased 1+ L KJR (the R KJR and bilateral AJRs were 2+). A L-S spine MRI scan, performed on 07/06/22, showed a L3-L4 large L-sided disc herniation w/ superior extrusion causing compression of the descending L L3 nerve root and deviation of the thecal sac to the R and L4-L5 small broad-based disc herniation. The patient was scheduled for surgery within two weeks.

The patient's working diagnosis was: left L3-L4 radiculitis/L3-L4 herniated disc. The patient was treated once weekly for 5 sessions, then every other week for 3 sessions and every 3-4 weeks for 5 months. Seven weeks after the initial visit, the patient resumed elliptical exercises and brisk walking and 4.5 months after the initial visit, he started a progressive jogging program. The L KJR was found to be 2+ six months after the initial visit. He was last seen exactly one year after the initial visit. There was a total of 18 dry needling of the IP trigger points and therapeutic stretching sessions. Follow-up by telephone contact demonstrated, a full painless function 1.5 years later.

Case #2. J.G. is 46 year-old bookkeeper presenting with left sciatic pain of 10 months' duration. She complained of progressively worsening L sciatic pain unresponsive to two courses of 3 months of twice weekly PT, chiropractic manipulation for 2 weeks, 8 sessions of acupuncture and L-ESIs twice. A L-S spine MRI scan, performed on 05/11/22, showed a moderate-sized L5-S1 central/left paracentral disc herniation. The patient was scheduled for neurosurgery in three weeks from initial presentation. The patient complained of sharp, burning, throbbing left sciatic pain radiating to the left posterior buttock and thigh. The pain intensity, at worst, was 8/10. There was no associated LE weakness or paresthesias. The patient was limited sitting up to 10 mins. and limited in walking with a limp up to 7-8 blocks and had left sciatic pain with Valsalva

maneuver. The patient was taking meloxicam 15 mg QD and cyclobenzaprine 10 mg BID.

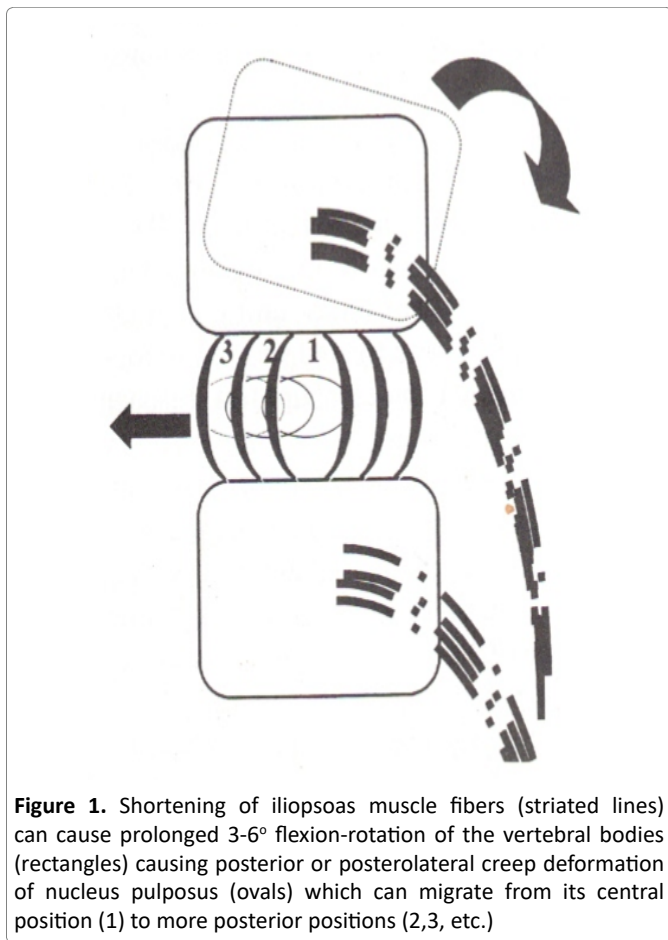
The physical examination was significant for a gait with truncal flexion and left antalgia, limited lumbar flexion, left SLR to 30° with left posterior thigh pain, trigger point tenderness of the iliopsoas and quadratus lumborum, decreased left hip ROM, a left Thomas sign with posterior thigh pain, left hip flexor weakness 4/5 and an absent L AJR.

The patient's working diagnosis was: left S1 radiculitis/L5-S1 herniated disc. The patient was treated once weekly for 8 sessions, then every other week for 10 sessions and every 3 weeks for 6 sessions. After 11 months, the patient was walking for 20 minutes and sitting for 2 hours without need to get. One year after the initial visit, the patient moved furniture with worsening of pain and function. A repeat L-S spine MRI scan, performed on 11/7/23, showed the same broad-based L4-L5 left paracentral disc herniation abutting on the left exiting L5 and descending S1 nerve roots. The patient was treated with iliopsoas dry needling trigger point treatment and therapeutic stretching for 15 more sessions over the next 8 months. 1.5 years after the initial session, the patient was walking on the treadmill for 45 minutes and was sitting for more than 1.5 hours without need to get up and walk around. The L AJR was found to be 2+ sixteen months after the initial visit. She was last seen in the office 7 months ago. There was a total of 41 dry needling of the IP trigger points and therapeutic stretching sessions. Follow-up by telephone contact demonstrated, a full painless function 7 years later.

Discussion

In a somewhat remorseful report⁴ 15 years after *The Guidelines*, by Deyo (one of the panel members from *The Guidelines*) et al. found a 629% increase in Medicare expenditures for L-ESIs, a 423% increase in opioids for back pain, a 307% increase in lumbar MRI scans and a 220% increase in surgical fusion rates among Medicare beneficiaries with no studies demonstrating improvement in patient outcomes or decreased disability rates. *The Guidelines* insisted on the need for RCTs for physical medicine, physical therapy and therapeutic exercises to be acceptable treatments. These two cases, were effectively treated with a completely riskless procedure. The cost of care, assuming \$125 per treatment session, was \$2,250 in case #1 and \$5,125 in case #2. This puts iliopsoas myofascial dry needling and therapeutic stretching at less than the cost of two L-ESIs. In 2010, in a study by Parker et al⁵, 111 patients were treated with single level discectomy for radiculopathy and the mean cost for surgical care was \$42,554 and the mean cost for the first year post-operative care was \$4,696. That was 15 years ago, so this treatment undercuts the cost of surgery by at least a tenfold factor. Facility fee for operating room cost was not included.

Since the medical system is already spending billions on ineffective, expensive, invasive procedures and based on the results of these cases and the cases in my previous paper², what is therefore needed is the to initiate a multi-center trial of treatment. There is an inherent bias in medical education and research. Drugs and surgery are advanced as scientifically proven effective methods of treatment. Only recently, has diet and nutritional intake found to be useful and instructed as medically important. "Physical" has not been treated in medical education as a valid or important treatment method. Controlled studies are necessary so this area of treatment can add "boxes" to the treatment algorithm. At present, treatment for lumbar herniated discs and lumbar radiculitis include McKenzie extension exercises in an attempt to "milk" back the posteriorly herniated disc anteriorly⁶. This idea is based on the evidence of cadaveric lumbar spinal preparations, when loaded anteriorly cause creep deformation of the nucleus pulposus posteriorly through the annuli⁷. Theoretically³, shortening of the IP from trauma or overuse can maintain the vertebral body in a prolonged flexed position to posteriorly or laterally herniate the nucleus pulposus (see figure 1). This is the theoretical basis for the IP myofascial treatment of a lumbar herniated disc.



The definitive multi-center study evaluating surgical versus nonoperative treatment for lumbar herniated disc by Weinstein et al⁸. (R Deyo was also one of the authors) is a good basis for a definitive treatment trial. However, the SPORT (Spine Patient Outcomes Research Trial) is methodologically flawed. While surgical intervention is defined as "a standard open discectomy with examination of the involved nerve root" using loupe or microscope magnification to remove a disc fragment. The nonoperative treatment "group received 'usual care'... include at least active physical therapy, education/counseling with home exercise instruction". Was there hands on myofascial massage treatment, or exercise such as McKenzie protocol or maybe cardiovascular biking or core strengthening or Williams flexion program? Sounds non-specific and vague compared to standard surgery.

To strengthen the comparison to the SPORT protocol, these two new cases are presented to assure that lumbar herniated discs, treated by iliopsoas trigger point protocol. Only 3 of the 6 cases in the acute lumbar radiculitis and foot drop treated with iliopsoas trigger point dry needling and therapeutic stretches² had herniated discs on MRI scans. As demonstrated in a study by Bush et al⁹, 96% of patients for treatment of severe sciatic pain and root tension signs have a significant discogenic abnormality based on CT or MRI scans, so one can assume that the two cases without MRI scans most likely had herniated discs.

The proposed study, using the SPORT protocol needs to compare the surgical care described therein with iliopsoas myofascial treatment with trigger dry needling, physical therapy and therapeutic stretching for nonoperative care. The challenge has been made.

Acknowledgement

No financial support was involved in this report.

References

1. Bigos S, Bowyer O, Braen G, et al: *Acute Low Back Pain in Adults. Clinical Practice Guidelines No. 14.* Rockville, MD, U.S: Department of Health Agency for Health Care Policy and Research, AHCPR publication 95-0642; 1994.
2. Ingber R. Iliopsoas trigger point dry needling and therapeutic stretching in the treatment of a series of six consecutive patients presenting with acute lumbar radiculitis and foot drop. J Bodyw Mov Ther. 2023; 36:1-4.
3. Ingber RS Myofascial pain in lumbar dysfunction. Physical Medicine and Rehabilitation: State of the Art Reviews. 1999; 13:473-498.
4. Deyo RA, Mirza SK, Turner JA, et al. Overtreating chronic back pain: Time to back off? J Am Board Fam Med. 2009; 22: 62-68.
5. Parker SL, Xu R, McGirt MJ et al. Long-term back pain after a single-level discectomy for radiculopathy: incidence and health care cost analysis. J of Neurosurg Spine. 2010; 12:178-182.
6. McKenzie RA: *The Lumbar Spine: Mechanical Diagnosis and Therapy.* Waikanae, New Zealand, Spinal Publications; 1981.
7. Shah JS, Hampson WDG, Jayson MIV: The distribution of surface strain in cadaveric lumbar spine. J Bone Joint Surg. 1978; 60B:246-251.

8. Weinstein JN, Tosteson TD, Lurie JD et al. Surgical vs nonoperative treatment for lumbar disk herniation: the Spine Patient Outcomes Research Trial (SPORT): a randomized trial. *JAMA*. 2006; 296:2441-50.
9. Bush K, Cowan N, Katz DE, Gishen P: The natural history of sciatica associated with disc pathology. A prospective study with clinical and independent radiologic follow-up. *Spine*. 1992; 17: 1205-1212.