

A CLINICIAN'S PERSPECTIVE

Providing Opportunity While Assessing Shoulder Pain

Louis Greene, PT, Dip. MDT

As the healthcare system evolves, utilization of services and containing costs remain issues on the forefront. Research indicates that when a patient with low back pain (LBP) is sent to physical therapy before having a MRI, there are significantly lower utilizations of MRIs, surgery, injections, opioids, and overall cost of care (Fritz et al.2015). I recently encountered a patient with shoulder pain that may illustrate similar findings in the peripheral joints.

A 36-year-old female was seen for a complaint of left-sided shoulder pain after falling on the ice. X-rays at the ER three weeks prior were negative for fracture and she was referred to an orthopedic clinic. She had had three orthopedic visits and a MRI was scheduled for the following week.

Since the MRI was coming up, I made a comment to her suggesting we only had one week to get her better to avoid the MRI. To my surprise, she was stunned, almost tearful, saying "Do you think that's possible?" She was scared and apprehensive as she associated the MRI with an impending surgery. It became clear that what was presented to her previously, or how she interpreted it, was not optimistic regarding her recovery.

Her experience was an important reminder to me just how powerful our words and perspectives are to a patient. As she described it, no one ever presented it to her in a manner that suggested she might be able to avoid surgery, even though she had not tried any type of conservative care yet. Research indicates that people with abnormal MRIs can function in an asymptomatic manner (Fredericson et. al, 2009, Sher et al. 1995, Schwartzberg et al. 2016). In addition, physical therapy for symptomatic shoulder pain can be effective (Green, S. 2003, Kidd, J. 2013), even in those with rotator cuff tears (Baumer, 2016). Yet in this case, the patient was unaware that a good outcome was possible using conservative care.

Research in patients with LBP indicates patient's perceptions about their pain can predict clinical outcomes (Fostera et. al., 2008). Additionally, when looking at patient satisfaction with regards to consultations, Larum et al. (2006) identified that patients sought information regarding what they could do to help themselves. These are important points for healthcare providers to consider when discussing clinical findings, designing and proposing management strategies.

This patient's symptom onset was sudden after falling on the ice. X-rays were negative for fracture. Pain medication was prescribed and she was referred to an Orthopedic clinic. With red flags and fracture ruled out, could a referral to physical therapy have been a more cost-effective strategy? Perhaps, but physical therapy would definitely have allowed her to be active in her care which was found to be important to the patient (Larum et al, 2006).

This patient met several criteria for a Derangement: constant pain, a mechanical obstruction with major loss of ROM and a rapid change (the onset) of both ROM and pain. Her pain was significantly affected with movement consistent with a mechanical problem.

The patient was instructed in repeated extension with patient overpressure for the shoulder. Shoulder extension using the raised back of an elevated treatment table was implemented. Initially, her ROM was limited and painful. However, with each successive repetition she gained motion and reported decreasing pain. After 10 repetitions, her baseline movement shoulder ABD was re-tested and noted as "better". The patient performed additional repetitions going further and further into the ROM each time. At the end of the evaluation, the patient demonstrated nearly full shoulder flexion and ABD ROM with minimal compensation or pain. Her original complaint of 4/10 pain at rest was now rated at 0/10.

The patient was instructed to use this motion with the self-overpressure consisting of 10-20 repetitions every two to three waking hours. Precautions were also provided. Upon follow up 72 hours later, she reported she was 98% better. Coincidentally, a quick dash revealed a current score of 2% (decreased from 86% at the evaluation). The patient was provided further education and reassurance that since she was making good progress, no changes were deemed necessary. At the third and final visit, she demonstrated full, pain-free, active and passive shoulder ROM. She was off of the pain medications, back to work and had cancelled the MRI. She was instructed in the possibility of reoccurrence and reminded that she had the self-management tools required.

In summary, a 36-year-old woman was seen in an outpatient physical therapy clinic. She had fallen three weeks prior, was on opioid medication, in a sling, had constant pain, disturbed sleep and was unable to work. She had one ER visit and three visits to an orthopedic clinic. Upon clinical examination using the Mechanical Diagnosis and Therapy (MDT) assessment, she was diagnosed with a rapidly reducible presentation and classified as a Derangement. In one week's time, with three total visits, she was able to discontinue the pain medications, restore full, pain-free ROM, restore her strength, return to work and return to the gym. She was also able to cancel the MRI that had been ordered.

One consideration regarding this case was the late utilization of physical therapy. Looking at studies for patients with LBP suggests this can lead to increased utilization of potentially costly services (Frogner et al. 2016, Childs et.al 2015). Other considerations are the importance of the clinical picture we present to our patients and the management strategies we choose. This patient did present like a full thickness rotator cuff tear might have. However, she had a rapidly reducible Derangement. Had she not been sent to physical therapy, it is likely a more invasive treatment would have been sought.

One thing is clear in this case; the MDT evaluation and treatment restored a patient with an extremely high level of impairment to her prior level of function within one week's time. Her access to that treatment had been delayed by three weeks after entering the medical system via an ER visit and being referred directly to an Orthopedic surgical clinic without the utilization of early physical therapy.

References:

Childs JD, Fritz JM, Wu SS, Flynn TW, Wainner RS, Robertson EK, George SZ. (2015). Implications of early and guideline adherent physical therapy for low back pain on utilization and costs *BMC Health Services Research*; 15:150.

Fostera NE, Bishopa A, Thomasa E, Maina C, Horneb R, Weinmanc J, Haya E. (2008). Illness perceptions of low back pain patients in primary care: What are they, do they change and are they associated with outcome? *Pain*; 136,177–187.

Fredericson M, Ho C, Waite B, Jennings F, Peterson J, Williams C, Mathesonn G. (2009). MRI abnormalities in the shoulder and wrist joints of asymptomatic elite athletes. *Pmr Journal*; 1(2):107-116.

Fritz JM, Brennan GP, Hunter SJ. (2015). Physical Therapy or Advanced Imaging as First Management Strategy Following a New Consultation for Low Back Pain in Primary Care: Associations with Future Health Care Utilization and Charges. *Health Serv Res. Dec*; 50(6):1927-40. doi: 10.1111/1475-6773.12301.

Frogner BK, Harwood K, Pines JM, Andrilla CH, Schwart. (2016). Does Unrestricted Direct Access to Physical Therapy Reduce Utilization and Health Spending? *Health Policy and Management Issue Briefs*; Paper 41. http://hsrc.himmelfarb.gwu.edu/sphhs_policy_briefs/41

Green S, Buchbinder R, Hetrick SE. (2003). Physiotherapy interventions for shoulder pain. *Cochrane Database of Reviews*; Issue 2. Art. No.: CD004258. DOI: 10.1002/14651858.CD004258.

Kidd J. (2013 Aug). Treatment of shoulder pain utilizing mechanical diagnosis and therapy principles. *J Man Manip Ther*; 21(3): 168–173. doi: 10.1179/2042618613Y.0000000037 PMID: PMC3744850

Laerum E, Indahl A, Skouen JS. (2006). What is “the good back-consultation”? A combined qualitative and quantitative study of chronic low back pain patients' interaction with and perceptions of consultations with specialists. *Journal Rehabil Med*; 38: 255-262.

Schwartzberg R, Reuss BL, Burkhart BG, Butterfield M, Wu JY, McLean KW. (2016 Jan). High Prevalence of Superior Labral Tears Diagnosed by MRI in Middle-Aged Patients with Asymptomatic Shoulders. *Orthop J Sports Med*; 4(1): 2325967115623212.

Sher JS, Uribe JW, Posada A, Murphy BJ, Zlatkin MB. (1995). Abnormal findings on magnetic resonance images of asymptomatic shoulders. *J Bone Joint Surg Am.*;77:10-15.