



X-RAY / IMAGING / MRI

Have You Ever Ordered an MRI?

UNDERUTILIZATION OF MRI IN CHIROPRACTIC SPINE CASES

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WHAT YOU NEED TO KNOW

- Radiculopathic and myelopathic clinical scenarios are common in contemporary clinical chiropractic practice.
- An immediate MRI is clinically indicated if there are significant radiculopathic or myelopathic findings (signs and symptoms of spinal-cord involvement).
- Upon interviewing dozens of spine surgeons, they all have a similar comment about chiropractic: “Why don’t they learn more about spine management and order MRIs sooner?”

Radiculopathic and myelopathic clinical scenarios are common in contemporary clinical chiropractic practice. Daily, most practices must manage cases with pain radiating down the arms and legs, present with motor and sensory deficiencies, and pathological reflexes.

The question that must be asked is what is causing that clinical presentation before we treat it. Every health care provider is correctly taught to formulate an accurate diagnosis, prognosis and treatment plan (the “big three”) before commencing treatment. Knowing what bodily tissues are injured or malfunctioning before commencing care is key.

A common scenario, and a dangerous one to the long-term well-being of your patient, is to say, for example: *They have radiculopathy at C5, and I am going to commence treating the patient for that malady.* The question of “What caused the radiculopathy?” has not been answered. Is it a herniated disc, varix, extradural tumor, myelomalacia, or other potential comorbidities that caused the radiculopathy?

The first step in any treatment plan, as with radiculopathic signs and symptoms, is to conclude an accurate diagnosis of the cause of the problem, and that typically involves advanced imaging in the

form of an MRI.

Carriers, licensure boards, the evidence in the literature, and what's taught in chiropractic and medical academia all agree that localized pain, in the absence of radiation of pain, motor or sensory deficiencies, or pathological reflexes, should be treated conservatively for approximately six weeks. Should the pain persist for greater than six weeks, then an MRI is warranted.¹

It has been well-established and accepted that X-rays are indicated for back pain without concern for radiation, as the exposures for spinal X-rays are well within the safety standards²⁻³ That topic has been well-documented in the literature.

X-rays will aid in the diagnosis of radicular pain with osseous derangements, such as advanced arthropathies, fractures, osseous tumors, and lysis, to name a few; however, most cases present with disc-related pathologies that *will not* present themselves on X-ray.

An immediate MRI is clinically indicated if there are significant radiculopathic or myelopathic findings (signs and symptoms of spinal-cord involvement). The doctor must make a clinical decision on "the significance" of the radiculopathy.

If there is mild motor or sensory loss, then perhaps a conservative course of care is indicated for that six-week period. However, if there are any myelopathic or more than "minor radiculopathic findings," the question of what is causing that clinical presentation must be answered before treating the patient.

How can you treat a condition you do not know the cause? That is called "guessing," and the hard rule is "If you don't know, don't guess." Your patient's well-being, and possibly life, should there be a tumor, "is at stake."

The American College of Radiology Appropriateness Criteria, 2022, in Variant 6, lists MRI as "Usually Appropriate" for low back pain with or without radiculopathy with low-velocity trauma or the elderly. Except for arthropathy (degeneration), it is uncommon *not to* have some level of force as the initiating factor, with a clinical presentation of radiculopathy or myelopathy. Therefore, in most cases, Variant 6 is applicable. Absent of a history of any type of trauma, the doctor must make a clinical decision to order an MRI, but must have a documented rationale for the order.

Upon interviewing dozens of spine surgeons, they all have a similar comment about chiropractic: "Why don't they learn more about spine management and order MRIs sooner?" This conversation is typically in the operating room, where a significant space-occupying lesion was found after a course of chiropractic treatment, with radiculopathic or myelopathic findings persisting throughout the course of the chiropractor's care.

To underscore this problem in the chiropractic profession, Trager, et al. (2022), reported that patients in chiropractic offices for newly diagnosed radicular low back pain were less likely to get MRIs of the spine vs. other care.³ The authors cite the American Chiropractic Association as one of the reasons for the chiropractic profession having a lower utilization of MRI.

Although the insurance carriers will support that as a cost-saving avenue, according to Dr. Stu Hoffman, president of ChiroSecure, the malpractice carriers will be shouldering the burden of those missed diagnoses.

MRIs *should not* be ordered because a patient was in an auto crash, as they are not indicated to make the lawyer happy. That action could be a licensure violation and insurance fraud. On the "flip

side," immediate MRIs, when clinically indicated, are used to manage spine cases when in your offices and when collaborating with medical specialists.

Should you have advanced credentialing in MRI interpretation from chiropractic and medical academia, and know how to interpret MRI with those credentials, that will elevate your reputation to the next level. This level of management will bolster your reputation as a primary spine care provider within the medical and legal communities; and help build your practice from a posture of clinical excellence.

References

1. Krogh SB, et al. Appropriateness of referrals from primary care for lumbar MRI. *Chiro & Manual Ther*, 2022;30(1):9.
2. Tubiana M, Feinendegen LE, Yang C, Kaminski JM. The linear no-threshold relationship is inconsistent with radiation biologic and experimental data. *Radiol*, 2009;251(1):13-22.
3. Trager RL, et al. Guideline-concordant utilization of magnetic resonance imaging in adults receiving chiropractic manipulative therapy vs other care for radicular low back pain: a retrospective cohort study. *BMC Musculoskel Dis*, 2022;23(1):554.

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