



Australian Association of Musculoskeletal Medicine

MRI no benefit in low-back pain triage

13 December, 2011

Use of MRI does not improve outcomes in patients with low-back pain referred for epidural steroid injections, a study finds.

The study of patients with lumbosacral radiculopathy found no difference between individuals' pain scores or functioning at three months, whether or not the treating doctor reviewed their MRI findings before deciding on injections.

Patients who received MRI did experience short-term improvements in leg pain, but overall the scans had little impact on clinical decision-making, despite being recommended by some guidelines for this purpose.

The study, published today in the *Archives of Internal Medicine*, involved 132 patients from US primary care and pain clinics whose symptoms warranted epidural steroid injections.

They were randomised to two groups, which determined whether or not the treating physician was permitted to review the MRI findings before proposing a treatment plan. In the MRI-blinded group, an independent physician reviewed the MRI findings for subsequent comparison.

Patients in the two groups received different treatment plans 66% of the time; however these differences were generally minor, and limited to the type of epidural steroid injections.

Just 7% of patients were spared the injection by receiving MRI.

"Our results suggest that although MRI may have a minor effect on decision making, it is unlikely to avert a procedure, diminish complications, or improve outcomes," the authors said.

"Considering how frequently epidural steroid injections are performed, not routinely ordering an MRI before a lumbosacral epidural steroid injection may save significant time and resources."

The authors noted that guidelines were conflicting on the use of MRI in low back pain, yet its use in this context "continues to soar".

However, an attached commentary argued that MRI had potential benefits which were not accounted for in the study, including its use in ruling out "red flag" conditions.

"It seems premature to counsel against guideline recommendations for obtaining MRI prior to consideration of epidural steroid injections," the commentary said.

Archives of Internal Medicine 2011.

Comment:

I think that the lead article should be Deyo's response to this study. He is correct in saying that there are other benefits gained from performing the MRI - not only the exclusion of red flags (there happened to be none but then the numbers are small). Also, who seriously is going to accept that an epidural injection should be performed without reference to a gold standard diagnosis? The lawyers would be interested in THAT approach. If one reads the paper, it does show that there was a better outcome when reference to MRI determined a different level than the blinded group. Also the treatment is empirical - some patients benefit enormously and some get no or little benefit - we don't really know why - but it is still better than having surgery if it works for you. Finally it is my experience that patients benefit in other ways when they are informed of a diagnosis which is confirmed by an MRI (along with concordant clinical signs). Many patients have been told that their "hip is out", that their posture is wrong, or that one leg is too short or that their muscles are too tight - when all along they have had discogenic pain or even true radicular pain. An appropriately timed MRI, and education about the natural history and prognosis can stop the never-ending cycle of looking for the cause. (It certainly beats doing a CT (for discogenic pain) which might not show any abnormality - and carries a radiation risk)

Geoff Harding, President, Australian Association of Musculoskeletal Medicine.