

Comparison Of Cervical MRI Findings In Patients With Pathologic Reflexes

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PURPOSE: Hyper-reflexia can be a normal variant, but it can also be a sign of spinal cord compression or other central nervous system lesion. This finding may originate in the cervical spine and its presence can be a concern for doctors of chiropractic manipulating the cervical spine. **METHOD:** The subjects in this investigation are patients who presented to a clinic over an 18-month period with cervical complaints. There were 62 patients, however 7 were post-operative status and were not included. Only those with pathological reflexes were compared with their MR findings for the purpose of analysis for this investigation. Hyper-reflexia, or pathological reflexes, were defined to be +3 or +4 patellar or Achilles reflexes, unilaterally or bilaterally.

RESULTS: The number of patients presenting with cervical spine complaints and were found to have hyper-reflexia was 16. 5 patients (31.3%) were hyper-reflexic but did not have MRI's and one (6.3%) had an MR ordered but went elsewhere. The remaining eligible subjects (n = 10) were compared with their MR findings. 7 patients (70.0%) were found to have spinal cord compression of varying degrees. 3 patients (30.0%) were found to be hyper-reflexic but had normal MR scans. Additionally, 4 patients (7.3%) in the original population (n = 55) were normal reflexic but had cord compression on MR scan. This brings the total number of patients with spinal cord flattening (n = 11, 20.0%) in the original population (n = 55). None of the patients had an abnormal signal within the cord. **CONCLUSION:** The results of this retrospective analysis indicate that patellar and Achilles tendon reflexes are important in the evaluation of patients presenting with cervical spine complaints to doctors of chiropractic. Additional investigation should take place correlating hyperreflexia with clonus, Hoffman's reflex, and diminished coordination as well as MRI and perhaps SSEP.

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