

THE RAPID AND PROGRESSIVE DEGENERATION OF THE CERVICAL MULTIFIDUS IN WHIPLASH: AN MRI STUDY OF FATTY INFILTRATION

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What was the study about?

The study examined patients with whiplash-associated disorders (WAD) caused by a motor vehicle crash. The main purpose of the study was to investigate the development of Muscle Fatty Infiltrates (MFI) in the neck muscles. The study looked at the difference between MFI in individuals who fully recovered, or had ongoing mild symptoms compared to those who had ongoing moderate/severe symptoms. A further aim was to determine if assessments of MFI could help predict outcomes for people with whiplash.

What did the study find?

The study found that water-fat magnetic resonance imaging focusing on MFI combined with other whiplash related risk factors could help in identifying recovery outcomes for whiplash patients. MFI values at 2 weeks could accurately differentiate patients with moderate/severe symptoms at 3 months from those who had recovered and those with mild symptoms.

Why is this interesting or important?

This study demonstrated that MRI water-fat imaging of neck muscles may have potential to predict patient outcomes as early as 2 weeks post motor vehicle crash. This could have implications for the early assessment and management of people with whiplash.

How was the study done?

36 patients presenting with whiplash-associated disorders were involved in a longitudinal study that examined patients at 1 week or earlier, 2 weeks and 3 months after a motor vehicle crash. The commonly used Neck Disability Index (NDI) measured self-reported pain and disability. The NDI was used in conjunction with MRI water-fat scans to measure full recovery/mild symptoms and moderate/severe disability.

What does this mean for practice?

An important part of helping people with whiplash-associated disorders, is to identify and develop better treatments early after diagnosis. Improvements in early detection of patients with moderate/severe disability would allow appropriate treatments to be better targeted at patients that require the most care.

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