“Whiplash—is it just a ‘crash for cash’ condition?”

Data from the Centres for Disease Control indicates that over 4-million adult drivers and passengers are treated in US emergency medicine departments annually for whiplash as the result of a motor-vehicle collision (MVC). Up to 50% of these patients transition from acute to chronic pain, resulting in a substantial personal and economic burden. The variability of reported symptoms including neck pain, complaints of dizziness, otological and ocular disturbances, headache, loss of concentration, anxiety, depression, and deficits in voice projection and swallow, can challenge even the most astute clinician.

In the vast majority of whiplash cases, structural damage on objective imaging is rarely associated with symptoms. The prevailing opinion remains that poor functional recovery is largely influenced by social, psychological and behavioural factors, not biological. While this may be the case in some, our preliminary data and previous work are at odds with the position that symptoms of chronic whiplash are purely related to psychosocial phenomena. We have demonstrated the rapid and early expression of muscle degeneration, signs of disturbed descending control, voice and swallow deficits, and muscle weakness in the non-resolving subgroup. The complex signs and symptoms, known as whiplash associated disorders (WAD), bear striking similarities to patients with incomplete spinal cord injury; raising the possibility that chronic WAD is an expression of an initial mild injury to the central nervous system, in at least a subset of patients.

The long-term goals of our interdisciplinary research programs are to improve outcomes in WAD, but before this can be realized, it is crucial all stakeholders understand the biopsychosocial factors underlying poor functional recovery. This new knowledge will set the stage for future interdisciplinary studies investigating more objective quantitative assessments and the development of targeted science-based interventions that avoid stigmatization of the individual with chronic WAD as having purely a psychosomatic pathology.