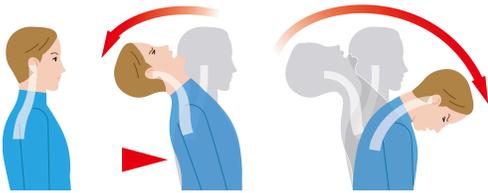


Spine Management Report

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Whiplash - a Complex Neurological Disorder?



Astrup et al (2022) in very recent paper out of the Department of Neurology, Bispebjerg Hospital, University of Copenhagen, reviews the concept of whiplash and its effects on the body. They state, "The whiplash disease is commonly regarded as a post-traumatic condition initiated by distortion and sprain in the neck by a whiplash-type trauma." (pg 1)

The trouble in the short and long-term management of the disorder is based on our ability to objectify the condition. The paper continues by reporting, "However, verification of the assumed initial tissue injury in the neck appears elusive as evidenced by the accumulating number of negative MRI studies." (pg 1) Then there are the issues of the actual mechanism of injury and its effects on the victim's body. "A study by Castro et al. indicated that 60% of whiplash cases occur at speeds < 15 km/h and appear more frequently when only a relatively slight vehicle deformation occurs." (pg 2) The authors also discussed the onset of symptoms in larger groups by reviewing prior research findings. They report, "The initial clinical presentation includes delays, as reported by Radanov et al., in the development of headache and neck pain They reported delays in the onset of the headache of 10 h and in neck pain of 11 h after the impact in the patients who recovered within 2 years, and delays of 4 and 8 h respectively, in the non-recovery patients, the variation ranging from minutes to days. These symptoms delays favor a slowly evolving pathology rather than an immediate sprain lesion." (pg 2)

One of the most important points of discussion is how many whiplash victims continue to have chronic symptoms that require management. The authors comment, "A study of 446 whiplash Grade 2 patients from Ontario, Canada, free of litigation and from seeking compensation and followed for 2 years, showed chronicity to be about 40%." (pg 2) The basis of this paper is to discuss a more in-depth neurological condition related to whiplash that goes beyond a mere sprain strain. When we look at the disease process, the authors write, "...the natural history of the disease indicates an evolving pathology over hours to days after the initial incident, leading to muscular pain and tenderness and dysfunctional neuromotor control of neck muscles as well as adjacent muscle groups. This seems better explained as an evolving central neurological disorder..." (pg 3) This paper also outlines the need to evaluate the entire spinal system in whiplash injuries.

In conclusion the paper states, "The same may also apply to the lumbar region. Low back pain may develop following low velocity motor accidents similar to a whiplash-type accident, indicating that this type of lesion proposed about the whiplash disease is not specific for the cervical region" (pg 3)

It is important to work with doctors who understand the evolving concept of whiplash disorders and the medical literature. This is a complex syndrome which can have significant long-term consequences for injury victims.



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REFERENCE

1: Astrup J and Gyntelberg F (2022) The Whiplash Disease Reconsidered. Front. Neurol. 13:821097. doi: 10.3389/fneur.2022.821097