Lower Back Injuries in Motor Vehicle Collisions

This month a paper was published in the journal INJURY (Volume 41, Issue 2, Pages 144-146). The article, “Can patients with low energy whiplash associated disorder develop low back pain?” is authored by Nicholas Beattie and Martyn E. Lovell from the University Hospital of South Manchester. The authors looked into the relationship of neck and back injuries from Whiplash Associated Disorder (WAD). They also looked at whether a back injury could occur in the absence of neck injury. Unfortunately, as this point I have only read the abstract so I cannot determine the quality of the study.

The authors analyzed 800 consecutive claimant generated medicolegal reports for symptomatology of whiplash associated disorder (WAD) including the presence of mid and low back pain. They also looked at occupant position and bracing to determine what role, if any, these factors played in injury potential. The authors found that a claimed back injury following WAD was independent of both accident severity and accident vectors, approximately 40% claiming injury in low, medium and high violence groups and with rear, frontal and side impact. The authors established that it was unusual to have a back injury in the absence of a neck injury (18 out of 325, 5.5%) without a past medical history of back pain (72.2% of this group having previous back pain). They were surprised that patients with next to no car damage had the same incidence of back pain as those involved in more violent crashes when biomechanically unlikely. They determined that occupant bracing was not protective and that an occupant neutral position also did not protect against a back injury.

In discussing the results of the paper on-line on February 22, 2010, Author Martyn Lovell stated the following: We would hope that this article adds something to the literature. One aspect may be the random nature of symptoms and complaints in the litigation type population. We really did expect there to be less complaints of low back pain in the low velocity group. Can they really be symptomatic? Our article will be taken in two ways and I am sure will mean different things to different readers. I am sure it may be used in a medicolegal context. Some will say it justifies back pain at low velocity and in the absence of a neck injury. Some will say the claims of such an injury justifies the thoughts of the expert that this is a dishonest population. It certainly will cause the debates on this subject to continue.

I am looking forward to getting the full text of the paper because the authors apparently discuss the biopsychosocial factors and explore some the mechanical forces and vectors potentially affecting the lumbar spine. I found this paper interesting for a number of reasons. It confirms what practicing doctors see every day when treating these patients. Their finding that 40% of victims have claims of back injury regardless of injury mechanics or occupant position is consistent with my experience of treating patients for the past 25 years. Many authors have tried to label complaints of lower back pain after WAD as being far fetched. However, this is not the case in clinical practice for those doctors treating WAD patients. In fact, our practices have had quite a number of patients advance to surgery after relatively “minor” impacts due to herniated discs resulting in radiculopathy and myelopathy. Certainly those patients are not feigning their complaints. The article also made me think about the low incidence of low back pain only in a population not having had prior lower back pain. While this has not specifically been our experience, there is no doubt that patients with prior lower back injuries are far worse off when involved in even a minor trauma. Of course, we take the patient as we find them and if the “straw that breaks the camels back” happens to be a minor impact injury then that’s what it is.

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