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## **Whiplash Outcome: Do Most Patients Recover in 6-12 Weeks?**

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Although the provenance remains obscure, the notion that whiplash injuries usually heal within 6-12 weeks has somehow become firmly rooted in the medicolegal community. Over the years this myth has been served well by those eager to mollify insurers, usually in a rather thinly veiled attempt at self-promotion. Some of the more recent "experts" now frequently, and erroneously, cite the Mercy Conference Guidelines as the source of this data. However, try as I might, I have never discovered any scientific evidence to support this belief.

Even the Quebec Task Force on Whiplash-Associated Disorders (QTF),<sup>1</sup> in their near total abnegation of the relevant literature, suggests that the outcome is excellent and encourage physicians to so reassure their patients. Unfortunately, it is possible to arrive at such overly sanguine conclusions only by ignoring the relevant literature, which the QTF did, based on the pretext that it was flawed and, therefore, "unacceptable." It is unfortunate that the editors of *Spine* and their manuscript reviewers could not find all of the flaws in the QTF document, because, despite the vainglorious claims of some of its authors that their methods were of the highest scientific rectitude, this mix of good and mostly bad industrially-inspired "science," sponsored by an insurance industry with an obvious and serious interest in its outcome, should never have been foisted on the medical and lay publics. And I say this fully expecting a steaming rejoinder from Dr. Cassidy who is also incisively critical of (most of) my work.

So what does the field practitioner do to counter such baseless claims? To begin with, always i challenge the expert who relies on the 6-12 week myth. Ask for the source of this folklore. They'll never volunteer anything, because it simply does not exist. Although there are over 30 papers dealing with outcome, most have not reported data on week by week recovery periods. However, there are two recent exceptions.

Elsewhere<sup>2-4</sup> I have presented a treatment guideline based on my grading system of whiplash injuries. These guidelines have recently been partially validated by the studies of Radanov et al.<sup>5</sup> and Gargan and

Bannister.<sup>6</sup> Radanov et al. found that about 45% of his patients remained symptomatic at 12 weeks; about 28% were symptomatic at six months; about 23% were symptomatic at 12 months; and about 18% after two years. However, this was a mixed group of patients; some were the victims of side impact collisions, while others were victims of frontal or rear impacts. The rear impact patients fared worse than others, as has been almost universally noted in the literature. In fact, the mean of the reported figures for chronicity from mixed vector whiplash injuries (i.e., side impacts, frontal impacts, and rear impacts) is 39%, while the mean figure for chronicity for rear impact only studies is 56%.<sup>7</sup> As I have noted elsewhere, some of these studies do suffer from methodological flaws, but it is clear that the majority of victims do not recover quickly and completely.

Gargan and Bannister<sup>6</sup> divided their group into four grades of severity and reported time to recovery in the mildest group at eight weeks. The second group "stabilized" at 17 weeks, while the third and fourth (most severe, i.e., disabled) groups required an average of 20.5 weeks to "plateau."

Of course, we cannot argue that recovery periods are synonymous with treatment periods, nor do these two papers actually validate my treatment guidelines. However, making the argument that some patients will require careful management throughout their healing process, these outcome studies strongly discredit the 6-12 week healing construct and suggest that a whiplash grading system would indeed be helpful in determining a reasonable treatment period.

The issue of determining reasonable care is made more difficult by the fact that the recovery curve from whiplash, for some patients, has two peaks. Bring and Westman<sup>8</sup> reported a second wave of symptoms in whiplash victims occurring many months after the original injury. We have also documented a similar trend at this institute, with a large portion of recovered patients relapsing in the months or years following.

Gargan and Bannister<sup>6</sup> reported a late onset of neck pain, extremity pain or paresthesia, interscapular pain, tinnitus, headache, dizziness, and visual disturbance after one week. Between three months and one year post-accident 4% deteriorated; between one and two years post-accident another 22% deteriorated, lending further support to the two phase phenomenon as described by Bring and Westman.

Other investigators have reported fairly long delays in the onset of other conditions following exposure to whiplash trauma. Magn<sup>l</sup>sson<sup>9</sup> reported a delayed onset of shoulder peritendinitis in 53% of his study group several months after the accident. JÖnsson et al.<sup>10</sup> reported an early onset of disc symptoms in the more severe grades of herniation, but half of the disc herniation patients developed pain over a six week period.

Postconcussion syndrome may also develop days, or even weeks after an injury.<sup>11</sup> Coert and Dellon<sup>12</sup> reported two patterns in the onset of carpal tunnel syndrome (CTS) following motor vehicle accidents, one group becoming symptomatic within one week, and the other becoming symptomatic from one week to more than six months, and considering perineural fibrosis as etiology, two years.

As clinicians we must of course approach the craft of patient care conservatively and avoid accepting patients who seek care only as a means to an end in litigated cases, while treating true patients with no more care than is necessary.

Whiplash is a significant and growing public health problem, despite remonstrations to the contrary by special interest groups. As clinicians, we must be vigilant to guard against the proroguing of clinical mythology. As the noted science philosopher, Sir Karl Popper, wrote, "Science must begin with myths, and with the criticism of myths."

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