



Recurrent Nature of Pain

A Review of the Literature



Frank, MD. British Medical Journal 1993; April 3:901-9.

*Review of a study in which 373 patients less than 40 years old, with their first onset of back pain, are followed for 10 years. 89% had recurrences and only 33% had no lost time from work from future back problems. **Strategies to manage low back pain must be long term and preventive.***



Waddel, MD. JMPT 1995;18(9):590-596

“Traditional teaching is that 90% of LBP attacks recover within six weeks, but recent natural history studies suggest that this is overly optimistic and over-emphasizes RTW. It now seems that 50% of attacks settle within 4 weeks, but 15-20% have some symptoms for at least 1 year. 70% of patients who have acute back pain will suffer 3 or more recurrences. 20% will continue to have some back symptoms over long periods of their lives.”



Jayson, MD, FRCP. Spine 1997;22(10):1053-1056.

“At 3 months, only approximately 27% were completely better, 28% improved, 30% had no change, and 14% were worse or much worse. It may well be that in the many studies of acute low back pain, there has been very carefully selected clinical material so that only those patients with acute pain of recent onset and no other confounding factors were included, with the result that these studies do not reflect what actually happens in practice.”



Saal JA, MD. Spine 1997;22(14):1545-1552

*“The major premise used in the managed care system for the primary care of LBP is based upon the assumption that 90% of patients improve in 6-12 weeks. However, a natural history study by Von Korff found that approximately 60% will recur. In a study of BP in primary care, Von Korff and Saunders found that 60% to 75% improve within the first month, 33% report intermittent or persistent pain at one year, and 20% of patients describe substantial limitations at one year. **The premise for the AHCPR guidelines and Managed Care for back pain is not valid. [Emphasis added.]**”*



Waddell, MD. The Chiropractic Report 1993; July:1-6

“Traditional medical treatment according to the disease model has failed. Bed Rest: should die as soon as it can. Avoid bed rest if possible. Physical Therapy: There is no adequate evidence of effectiveness. Spinal manipulation: one of two treatments of proven value. The last 10 years produced a lot of solid scientific evidence to support the value of manipulation. Early active exercise: Is the other treatment supported by good evidence” .

“Relief of pain and restoration of function must occur at the same time. Failure to restore function means any pain relief will be temporary and reinforces chronic pain. In the management of occupational back pain, the chiropractic profession is leading the way. The problem is weakness and loss of function, not disease.”

“97% of BP seen by primary care physicians is mechanical in origin. There is something wrong with the muscles, ligaments, or connective tissues. Most patients with low back pain do not have ruptured discs, but it is notorious, partly because imaging studies dramatically overestimate the frequency.”



Eisenberg, MD. *Annals of Internal Medicine* 1997;127(1):61-69.

“More than 70% of patients who used alternative therapy never mentioned it to their MDs.”

Like the British study, this research demonstrated that even though patients no longer consult their medical provider, it does not mean that the problem has resolved. The myth of "natural healing time" must be reconsidered given the extended nature of pain and the fact that patients continue to seek out the advice of other providers when the primary care giver does not successfully treat the condition.



Cowley. Going Mainstream. Newsweek 1995;June 26:56-57.

“There is a growing awareness among health insurers that patients seeking unconventional care represent a huge potential market and that alternative care does not cost the insurer very much. As one managed care executive said, “3 visits to a DC are a lot less expensive than an MRI or back surgery.””

Concerning chronic pain, it makes a lot more sense to treat a patient with a periodic chiropractic adjustment than to allow the condition to degenerate to the point of requiring dangerous medication (impairing function, thus productivity at work) or surgery. Many times, daily exercise and self-management are not enough to control a chronic back problem.



Haldeman, DC, PhD, MD. Spine 1990;15(7):718-723.

“The pathology model cannot explain back pain or disability. It is not possible to look at pathology and determine the symptoms a patient may be suffering. It also is not possible to look at a patient with back pain with no neurologic deficits and determine the nature of the pathology. About 30% of asymptomatic subjects show abnormalities in the lumbar spine by myelogram, CT and MRI. There is a large percent of symptomatic patients with severe complaints in whom testing fails to reveal any structural lesion.”

A study by Jensen, which appeared in the New England Journal of Medicine 1994;331(2)July 14:69-73, produced similar results



Summary...

As a result of these and other studies there has been a shift in thinking away from the traditional "symptom" approach, towards contemporary thinking of "function". For many patients with recurrent back pain, staying functional is a "process" more so than a "result" based on a predictable healing time or average.



Jonsson MD. Journal of Spinal Disorders 1991;4(3):251-263.

Study of cervical spine of 22 patients who died of fatal skull fractures in MVAs. X-rays were evaluated by an expert orthopedic radiologist. Only 1 of 10 gross ligamentous disruptions were even suspected on X-rays. 198 lesions were missed. Multilevel soft-tissue injuries were common. Very few injuries were detected or even suspected on radiograms. The vast majority was not recognized. Plain radiograms cannot detect soft-tissue lesions unless they are associated with vertebral body malalignment. Conclusions: the majority of lesions are soft-tissue injuries. Plain radiograms show virtually no soft-tissue lesions.

Side note:

As a result of these types of studies, it has become apparent that a thorough physical examination is more important, in combination with functional assessments, than traditional diagnostic evaluations to determine the presence or absence of soft-tissue injuries.



Liebenson, DC, Oslance. Rehabilitation of the Spine. Williams and Wilkins, Baltimore. 1996:73.

*“80% of patients have no identifiable structural pathology and require treatment based on evaluation of functional deficits. In the majority of cases, patients have soft tissue injuries and functional changes are the only objective findings on which to base treatment and judge progress. Outcomes assessments including objective functional tests give the third party payers, patients and doctors a way to measure progress over time, and evaluate the prescribed treatment. **Overemphasis on treatment of structural pathology results in a failure to identify or focus on functional losses and work demands.** [Emphasis added.]”*



The Recurrent Nature of Back Pain

In other words, the reduction of pain alone is not an accurate indicator of the need for additional treatment. There has been a shift away from treatment based only on pain relief to treatment based on the desire to improve function and return to the patient to the original form of employment. The improvement of function in a person with a "complicated" soft tissue injury in combination with a physically demanding job is an ongoing process more so than an endpoint based on pain reduction alone.



Mooney, MD. J. Musculoskeletal Medicine 1995; Oct:33-39.

“Common acute back pain is due to chemical abnormalities created by soft tissue tear. The tear represents a mechanical disruption, which is usually microscopic. X-rays demonstrate no changes before and after an acute back injury.”

Again, function is more important in the evaluation and treatment of back pain than structural pathology. A "negative" x-ray has limited value in the determination of medical necessity since one cannot evaluate "function" from an x-ray. Similar findings concerning other imaging findings was also demonstrated in a paper by **Davis, DC. JNMS 1996;4(3):102-115.**

In general, imaging studies are not useful in determining the origin of pain. However, they are a useful diagnostic tool used in the detection of structural deformities or pathology, which may prevent the application of appropriate manipulative procedures.



Eisenberg, Kessler, Foster, Norlock, Calkins, Delbanco. Special Article:
Unconventional Medicine in the United States. NEJM Jan. 28, 1993

34% reported using at least one unconventional therapy in the past year

Highest use by non-black persons from 25-49 years of age who had relatively more education and higher incomes.

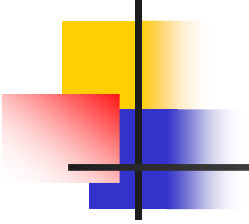
The majority used unconventional therapy for **chronic care**

1990 Americans made 425 million visits to providers of unconventional care.

This number exceeds the number of visits to all U.S. primary care physicians (388 million).

1990 expenditures for unconventional therapies \$13.7 billion, 75% of which was out-of-pocket.

This figure is comparable to the \$12.8 billion spent out-of-pocket annually for all hospitalizations in the U.S.



Question: When tissues have healed, shouldn't pain be gone and function restored?

Wahlgren DR et al. Pain 1997;73:213-221.

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Wahlgren DR et al. Pain 1997;73:213-221.

“Whereas traditional biomedical approaches indicate that time alone may be a curative factor, pain-related effects such as functional deficits and distress may extend beyond healing of tissue damage”

Phillips HC, Grant L Behav Res Ther 1991;29 (5):435-441

“The recovery process was found to be considerably longer than was expected and than would be predicted from the course of physical healing of soft tissue damage... This suggests a much slower recovery period than had been considered and a much larger number of people who are vulnerable to persisting pain.”

Tissue Repair and Rehabilitation

Herring S Med & Science in Sports & Exercise 1990;22 (4):453-456.

“ The tissue may repair and remodel, but concomitant changes in function-strength, strength balance, flexibility, and proprioception occur. The signs and symptoms of injury abate but these functional deficits persist...”

The rehabilitation process is not over when the symptoms disappear. Rehabilitation must not be solely based on symptom relief. It must address more than pain. The athlete has a functional disability after an injury, and, until that is addressed these functional changes will persist.”

Findings and Outcome in Whiplash-Type Neck Distortions:

Halldor Jonsson, Kristina Cesarini, Bo Sahlstedt, Wolfgang Rauschning, Spine, Vol. 19, No. 24, pp 2733-2743

Authors assessed the clinical and imaging findings and late outcome in 50 patients with whiplash-type neck distortions.

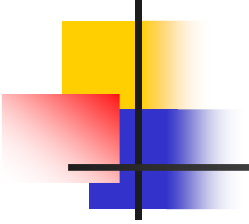
Neck pain persisted in 24 patients; radiating pain developed within 6 weeks in 19 patients.

Conclusions: ***Follow-up surgery on the chronic patients showed a high incidence of discoligamentous injuriures in whiplash-type distortions.***

“Patients with whiplash-type neck distortions inflicted in car collisions tend to develop progressive neck pain and stiffness during the first days after the accident.”

“These symptoms can persist over years and may become bizarre and disabling and ensue cumbersome and costly insurance litigations.”

“A significant increase in cervical spine injuries has been reported after the introduction of seat belts.”

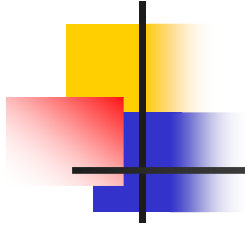


Halldor Jonsson, Kristina Cesarini, Bo Sahlstedt, Wolfgang Rauschning, Spine, Vol. 19, No. 24, pp 2733-2743
(cont'd)

“Traumatic cartilaginous endplate separations may explain why the two young patients with extensive posterior soft tissue injuries had normal disc signals on magnetic resonance imaging. **Because the discs are structurally intact in these avulsion injuries, they may generate normal signals on magnetic resonance.**”

“Pain can originate both from the ganglion and the richly innervated annulus fibrosis and also from the facet joints causing both local and referred pain.”

The most likely source of radicular symptoms is perineural scarring. Therefore, patients with neck distortions after traffic accidents should be mobilized early within the limits of pain to prevent scar transformation of hidden injuries.



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