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The Catastrophic Effects of Pain and the Nature of Tissue Healing Are Not a Focus in Chiropractic Practice

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Pain

Pain has been defined [in 1994] by the International Association for the Study of Pain (IASP) as "an unpleasant sensory and emotional experience which we primarily associate with tissue damage or describe in terms of such damage, or both."[1] In 1979, the IASP defined pain as "an unpleasant sensory and emotional experience which associated with actual or potential tissue damage, or described in terms of such damage."[2] As you can see, the definition of pain has not changed very much over the years.

The experience of pain is typically caused by a noxious stimulus that is induced by tissue injury. It is known that nociceptors encode noxious stimuli and transduce such input into action potentials which eventually reach the limbic sectors of the cerebral cortex where the experience of pain is thought to occur. An important point to understand that, "pain is the individual or subjective experience of the person to that stimulus, involving not only the perception of the noxious stimulus but also the interpretation of that sensation as an unpleasant one."[2] Moreover, "without the psychological component of unpleasantness attributed to the sensation, the noxious stimulus would not constitute a painful stimulus, and the individual could not said to be in pain."[2]

There are two major facts that we should consider before moving further. First, pain is always a psychologic state, and second, tissue damage is not always associated with the experience of pain. These will be very important to keep in mind when we discuss patient care.

How Common Is Pain?

According to the literature, it seems like everyone, to varying degrees, is in pain. This is not news to doctors, however in recent years, the general public is becoming more aware of the problem. In 1994, the New York Times printed an article, "Study Says 1 in 5 Americans Suffers from Chronic Pain."[3] We are told that researchers estimate that 34 million Americans suffer from chronic pain; that is pain which has lasted at least six months and led them to seek a doctor's help. Another article explains to the general public that, "as many as 80% of Americans complain of aching backs at some time in their lives, and nearly a third have back pain at any given moment."[4]

Obviously, the problem of pain in America is huge, and it is not likely to go away. The well-known studies by Meade, Koes, Manga and others have made it clear that chiropractors should be involved in the treatment of these patients. Based on this information, chiropractic offices should be literally packed with patients suffering with spine pain, and we should be happy to be characterized as doctors who treat back pain. Instead, we have collectively, and at times rather defiantly, rejected this characterization. Consider our psychopathology. We actually reject a characterization that could assist us in taking care of more and more patients. To me this indicates that we are not "the caring profession" to which we have laid claim, because our unwillingness to be perceived as back pain doctors would necessarily lead less patients to seek our care, and more likely seek relief through the use of dangerous medications and surgery. Our foolish mind set becomes obvious when we consider the catastrophic effects of pain.

The Catastrophic Effects of Pain

Dr. John Bonica, the founder of IASP, has written about the devastating effects that pain can have on the human body. Bonica states that nociceptive stimulation of the hypothalamus can cause an increased secretion of catecholamines, cortisol, adrenocorticotrophic hormone, glucagon, cAMP, antidiuretic hormone, growth hormone, renin and other catabolically acting hormones. There is also concomitant decrease in the secretion of anabolically acting hormones, such as insulin and testosterone. The combined effect of increased catabolic hormones and decreased anabolic hormones is a negative nitrogen state.[5] Bonica states further that the experience of pain is known to activate psychodynamic responses including fear, apprehension and anxiety. He indicates that the cortisol and catecholamine responses to anxiety usually exceed the hypothalamic response that is provoked directly by nociceptive impulses reaching the hypothalamus.[5]

The cortisol response to pain and nociception should not be taken lightly. Berne indicates that excess cortisol release can inhibit immune function, damage the GI tract, reduce tissue healing, and initiate catabolic processes in muscle and connective tissue.[6] It should be obvious that pain is more than just a symptom. The pain response is literally a disease process that must be eliminated if healing is to occur. We should be proud that so many medical researchers have stated that spinal manipulation is the most effective method for reducing spinal pain.

Clearly, the primary practice goal of the chiropractor should be the reduction of pain, and the primary patient education goal should involve describing the catabolic nature of pain so that patients will understand why they need to do all they can to stay pain free. The second practice goal and educational goal should involve the topic of tissue healing.

Tissue Healing

Chiropractors often complain that patients abort care after pain is gone. Regardless of what you do or say, a certain percentage of patients will never come in for care unless they are in pain. We should expect this to happen. It’s human nature. How should we address this compliance problem? Certain practice management consultants suggest that we engage in "confrontational report of findings" sessions to increase patient compliance and to insure payment.[7,8] In my opinion, this "confrontational" approach is one of the reasons why chiropractic has developed a poor reputation. Time and time again, people on airplanes and in airports tell me that they resent being pressured to come in for endless treatments. They resent the chiropractic guilt trips that DCs create regarding the "life or death" need for chiropractic care. This "confrontational" approach is quite ridiculous. Instead, I recommend the "physiological" approach.

First, discuss the catastrophic effects of nociception and pain. Second, explain how long it takes for tissues to heal and the factors which assist in tissue healing. At this point, let the patient participate in deciding how the treatment program should proceed so they do not feel like they are being psychologically manipulated.

How long does it take for injured tissues to heal? Unfortunately, most doctors do not know the answer to this question. Generally speaking, the acute inflammatory response last about 72 hours. As acute inflammation begins to resolve, the repair phase begins. The repair phase begins at about the 48th hour and can last for about six weeks, which is followed by the remodeling phase. Tissue remodeling begins about three weeks and can continue for over a year.[9]

Consider how long it can take for an injured ligament to heal. "A healing ligament may have about 50% of it strength by six months after injury, 80% after one year, and 100% after only 1-3 years, depending on the type of stresses placed on it and the prevention of a repeated injury." [10] Naturally, the length of time depends upon how severely the tissues are injured. Based on this information, how long do you think that patients need to maintain connection with their chiropractor? In actual fact, the answer is not three times per week for 1-3 years, as many of the unscrupulous practice consultants would like to think. However, you can present strong evidence that supports the need for patients to be examined when the pain has long subsided.

We need to recognize the fact that pain and inflammation will necessarily reduce joint and muscle motion. Joints, ligaments, discs, bone, and muscles all undergo histopathological changes during immobility, and the cardiovascular system suffers as well. [11] The term deconditioning syndrome has been used to characterize these pathologic changes.

If the deconditioning syndrome was in the forefront of a DCs mind, then continuous chiropractic care (meaning the adjustment) could not be the doctor's long-term concern for the patient. This is because chiropractic care cannot recondition the deconditioned tissues. The primary goal of the DC who is focused on the deconditioning syndrome is to reduce pain and enhance tissue healing. Chiropractic care is needed to reduce pain, restore mobility and neurological control to the segmental lesion, and to insure that this improved function is maintained during the reconditioning or rehabilitation process, even when the pain is gone. [11] Research has demonstrated that exercise [11,12] and nutrition [13] play the major role in the rehabilitation of deconditioned tissues. Chiropractors who are truly concerned about the long-term health prospects of their patients (a pain free state and full function), must include exercise and nutrition in their practices. This is a physiological fact that we can no longer deny.

Conclusion

DCs who currently include exercise and nutrition in their practices, because their focus is the deconditioning syndrome, often find that less chiropractic care is needed. They develop trusting, long-term relationships with their patients, and a very strong referral base. To grow a strong and rewarding practice, doctors need knowledge about physiology [and business]. Tricks and gimmicks, such as confrontation and intimidation, are not needed.

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