

CHIROPRACTIC NEUROLOGY RESEARCH BRIEF

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Spontaneous Resolution of Low Back Pain- A Misnomer

Introduction

Eighty percent of Americans will experience low back pain (LBP) at some time in their lives¹ with one-month prevalence between 35 and 37 percent.² This makes LBP the second leading reason for visiting medical physicians and the leading reason for visiting chiropractors^{3,4}, including chiropractic neurologists, in the U.S.

Unfortunately, it is generally believed that most incidences of LBP are short-term with 80 to 90 percent of cases resolving within six weeks, irrespective of the administration of treatment.⁵ The implication of this often-quoted study is that the LBP resolves when, in fact, patients without medical or chiropractic discharge simply terminate their own care.

Research

Reis et al.⁸ followed 219 subjects from 28 primary care family practices in Israel for two months. Similarly, 71 percent of the subjects showed improvement in functional status after two months, and only 37 percent reported complete pain relief after two months.

Coste et al.⁶ reported that 90 percent of LBP patients were without pain and disability two weeks after their first consultation with their MD or DO, however, the participants were limited to those who possessed LBP of only three days or less prior to presentation and who had been free of pain for at least three months prior to the onset of LBP. This exclusive criterion is rarely seen in clinical practice. In fact, recent studies have concluded that the majority of patients with LBP do not completely recover.

Croft⁷ sought to investigate the claim that 90 percent of episodes of LBP that present to general practice resolve within one month. In this prospective study of 490 subjects (203 men, 287 women) aged 18-75 years from two general practices, the authors sought to determine the difference in patients who stopped consulting for their LBP after three months to the patients who were free of pain and disability at a more reasonable length of time to determine resolution, three and 12 months.

Results

Ninety-one percent of patients stopped consulting their GP's within three months of the initial consultation, but at the three and 12 month follow-ups only 21 percent and 25

percent, respectively, had completely recovered from pain and disability. Additionally, **75 percent of patients continued to suffer some degree of pain and disability one year after initial consultation.** The authors state: *“The findings of our interview study are in sharp contrast to the frequently repeated assumption that 90 percent of episodes of low back pain seen in primary care will have resolved within a month. However, the results of our consultation figures are consistent with the interpretation that 90 percent of patients presenting in primary care with an episode of low back pain will have stopped consulting about this problem within three months of their initial visit. The original article to which this statement of “90 percent recovery” can be traced drew on a record review in one general practice. If no further consultation within an episode is taken as the measure of the “recovery” then record review is a valid measure of this. However, the inference that the patients have completely recovered is clearly not supported by our data.”*

Discussion

Essentially, there are few spontaneous resolutions to substantial LBP.

There are a number of biomechanical conditions that explain how acute LBP becomes chronic. Adverse mechanical loading of the musculoskeletal system, especially the lumbar spine, is one of many predisposing factors to the onset.⁹ Another condition that creates adverse mechanical loading of the lumbar spine is a loss of the normal lumbar (anterior, i.e. forward) lordosis (sagittal balance). Two studies showed that patients with chronic LBP tend to have a reduced lumbar lordosis compared to controls.^{10,11} Another study found that reduced lumbar lordosis as a consistent predictor of serious back pain.¹²

Scoliosis creates asymmetrical loads on musculoskeletal tissues because of the “S-shaped” lateral deviation of the spine. Mayo et al.¹³ found that adolescents with idiopathic scoliosis tend to have more intense, continuous back pain and are more restricted in performing activities of daily living versus controls.

Numerous studies have documented the association between leg length differences and LBP.¹⁴⁻²⁰

Two studies in *Spine*, found that abnormal vertebral motion caused LBP. Adams et al.¹² demonstrated that reduced range of motion in the lumbar spine with lateral bending was a predictor of low back pain, as well as Lund et al.²¹ whom found that chronic LBP

patients exhibited altered vertebral motion patterns compared to a normal population.

These are just a few of the many studies indicating that altered alignment of the spine is known to cause LBP and premature degeneration of vertebrae, disks, ligaments, muscles and myofascias²²⁻³⁸. These findings qualify, as primary therapy, physical and manipulative therapies for LBP.

Clinical Recommendations

Usually, three classes of LBP patients seek care:

- 1) Sudden onset of LBP due to trauma (i.e. sprains, strains from slips, falls and lifting, etc)
- 2) Exacerbations of chronic LBP due to aforementioned abnormal mechanical stresses.
- 3) Chronic LBP
- 4) Visceral affectations (not discussed here) from acute or chronic LBP. These changes are caused by nociceptive fiber potentiation of the autonomics.

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