Dr. Chestnut's Research Review

January 2017

Landmark Study Shows Benefit of Maintenance Care

Senna, M.K. and Machaly, S.A. (2011) "Does maintained spinal manipulation therapy for chronic nonspecific low back pain result in better long-term outcome?" Spine. Aug 15;36(18):1427-37.

QUOTE BOARD:

"This study confirms previous reports showing that spinal manipulation is an effective modality in chronic non-specific LBP especially for short-term effects as the disability and pain scores in our study are significantly reduced in the short-term evaluation - but not in long-term - when compared with the sham manipulation."

Oswestry Disability Score: "At the 4-month and 7-month evaluation the mean disability scores gradually elevated back toward the pretreatment level in the non-maintained SMT group. However disability score in the maintained SMT group continue improving."

Conclusions:

"SMT is effective for the treatment of chronic non-specific LBP. To obtain long-term benefit, this study suggests maintenance spinal manipulations after the initial intensive manipulative therapy."

Dr. Chestnut's Scientific and Clinical Insights:

Study Methodology/Description

This was a prospective single blinded placebo controlled study. That means this is a VERY high quality study.

Subjects were randomly assigned to their groups (no bias), there was a control to remove, as much as possible, the chance that improvements were from placebo, and assessments of improvement were performed by a blinded examiner (meaning the examiner did not know which group the patient was from - ie whether the patient had or had not been treated).

"Sixty patients, with chronic, non-specific LBP lasting at least 6 months, were randomized to receive either (1) 12 treatments of sham SMT over a 1-month period, (2) 12 treatments, consisting of SMT over a 1-month period, but no treatments for the subsequent 9 months, or (3) 12 treatments over a 1-month period, along with "maintenance spinal manipulation" every 2 weeks for the following 9 months."

"To determine any difference among therapies, we measured pain and disability scores, generic health status, and back-specific patient satisfaction at baseline and at 1, 4, 7, and 10 month intervals."

The outcome measures were Oswestry, Visual Analog Scale (VAS) for pain, SF-36 to measure quality of life, Patient Self Evaluation of Improvement, and Mobility tests.

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Dr. Chestnut's Scientific and Clinical Insights:

Study Results

"Patients in the second and third groups experienced significantly lower pain and disability scores than first group at the end of 1-month period (P = 0.0027 and 0.0029, respectively)."

"However, only the third group that was given spinal manipulations (SM) during the follow-up period showed more improvement in pain and disability scores at the 10-month evaluation."

"In the non-maintained SMT group, however, the mean pain and disability scores returned back near to their pretreatment level."

"At the 4 and 7-month evaluation the mean pain score gradually elevated back toward the pretreatment level in the non-maintained spinal manipulation therapy group. However, pain score in the maintained spinal manipulation therapy group continued improving."

Conclusions

"Spinal Manipulation Therapy is effective for the treatment of chronic low back pain. To obtain long-term benefit, this study suggests maintenance spinal manipulation after the initial intensive manipulative therapy."

Clinical Importance

Spinal mobility, spinal comfort, and spine-related functional ability and quality of life all showed the exact same trend; the group that received maintenance care not only maintained but increased mobility, comfort, function, and quality of life as time under maintenance care progressed over the 10 months.

The group that did not receive maintenance care not only failed to improve, they actually lost the improvements they had made during the first month.

Dr. Chestnut's MAIN CLINICAL GEM

For the first time we have peer-reviewed evidence from a well designed study that shows a maintenance chiropractic care program consisting of care every 2 weeks for up to 10 months not only prevents relapse and a waste of initial investment, it pays dividends in continued improvements!

Dr. Chestnuts Commentary

For as long as I can remember there has been a debate about frequency and duration of care with respect to chiropractic intervention. Much of this debate has been based on dogmatic opinion and resulted in dogmatic consensus documents. To be truthful, this is one of a very few studies that have ever validly compared different durations of care; I don't know of any that have compared frequency and duration.

The truth is that there are no valid data to determine frequency and duration of care and any claims otherwise are scientifically invalid and almost always logically absurd. There are many within the profession that claim that patients should be better in 3-5 visits and that any care beyond that represents malpractice in the form of overtreatment. There is no valid data to support such a conclusion and, in fact, the entire premise is based on the faulty assumption that back pain spontaneously and quickly (within a month) resolves in 90% of cases.

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A study published in the British Medical Journal in 1998 (Croft et al. Outcome of low back pain in general practice: a prospective study. BMJ 31: 1356-9) dispelled this myth and exposed it as being completely baseless. In fact, these authors point out that this assumption is based on no valid data at all but rather on data collected from general practices that showed that 90% of low back pain patients simply give up and stop consulting with their medical doctor because the treatments are not working (no surprise). Anyone who stopped consulting was categorized as resolved! Absurd! These authors point out that, in fact, only 25% of these patients had fully recovered within 12 months.

Another study published in the European Journal of Pain in 2012 came to the same conclusion (Itz et al. Clinical course of non-specific low back pain: A systematic review of prospective cohort studies set in primary care. European Journal of Pain (17): 5-15). "These findings indicate that the assumption underlying current guidelines that spontaneous recovery occurs in a large majority of patients is not justified."

We used these studies, as well as others, when creating our Evidence-Based Patient Outcome Protocols. We have already had doctors using our protocols successfully use this information to defend themselves against complaints from chiropractic boards. Many boards try to enforce the idea that patients should be better within a few visits or that patients should be told that their back pain will likely resolve on its own within a few weeks - this is scientifically unfounded and is dangerous misinformation.

I will address the topic of frequency and duration of care in a following newsletter where I do a review of the available literature. Let me end with a quote from this month's Senna and Machaly paper, "In a previous study, manipulated patients with chronic non-specific LBP had improved within 2 weeks and after this time, new cases of improvement occurred for every visit, and at the 12th visit, approximately 75% of the patients had improved."

The fact is that each patient is an individual and the only way to provide proper care recommendations is to do proper spinal health assessments at regular intervals that validly document and track progress. Without proper assessment and documentation it is impossible to come up with a valid care recommendation. This is why we created our Spinal Health Assessment and why the doctors who are using it are finding it so much easier to determine and communicate the need for care. Care should be based on examination findings - anything else is indefensible and invalid!! What are you using?