Dynamic Chiropractic

CHIROPRACTIC (GENERAL)

Opening Doors to Expand Your Care

A TREATMENT OPTION FOR POSTSURGICAL ADHESIONS & ILEUS?

Editorial Staff

"Chiropractic practice is dwindling, and not so slowly. Market share is going down. As I said at National University of Health Sciences' homecoming in 2012, instead of trying to get more people to come to chiropractors for a somewhat more limited treatment (adjusting), why not expand the practice to capture more patient populations?" Geoffrey Bove, DC, PhD, whose latest federal grant is funding a study on the value of abdominal massage / mobilization / visceral manipulation for postsurgical adhesions and ileus (bowel obstruction), sees the potential for chiropractors if this and other studies yield positive results.

After all, adds Dr. Bove, a research associate professor at the University of New England, "Though best to prevent, the adhesions aren't being prevented yet, so all doctors are seeing them on a daily basis, whether they are recognized or not. Why not go to the chiropractor with gut pain to get visceral manipulation?" Learn more about this study and its relevance to your practice in this interview with Dr. Bove and his co-investigator, Susan Chapelle, a registered massage therapist in Squamish, British Columbia.

Geoff, congratulations on getting another grant. This topic seems to be quite a departure from your career's work on pain mechanisms. How did you become interested in this field? My interest in this area was triggered by Susan, who introduced me to the methods by allowing me to observe her performing abdominal massage and specific visceral mobilization directed at postoperative adhesions. My curiosity was piqued, and together we developed a pilot study to determine if she could palpate, disrupt or prevent surgically induced adhesions in rats.

Our first observations seemed to link postsurgical adhesions and ileus, and we did preliminary experiments based on this observation. Our reading revealed that although these problems have an enormous health impact, there have been few advances in the treatment of either, despite extensive research. Our experiments support a novel means for adhesion formation prevention and attenuation of ileus. This all led to the grant application, which was received with enthusiasm from the start.

Who is the funding agency? This is a Research Project Grant (R01) and is being funded by the Public Health Service through the National Institutes of General Medical Sciences (NIGMS) in the amount of $790,000. This project is unique in content, and one of very few "complementary and alternative" studies funded by NIGMS. We scored high for innovation and for potential translation into clinical practice.

Geoff, how is this research relevant to chiropractic practice (particularly DC / multidisciplinary practices that employ massage therapists)? For those who are practicing these methods, the research has potential for supporting an expanded practice to include initiating treatments immediately after surgeries. Although I had never heard of these methods prior to working with Ms. Chapelle, it turns out that similar methods were taught to chiropractors as "surgical manipulation." It is my hope that our investigations will catalyze chiropractors to extend and expand their skills, and thus the breadth of their practices, with the inclusion of these methods.

It is important to clarify that there are two disparate practices covered under the umbrella term *visceral manipulation*. We will investigate the utility and mechanism of action of what is often referred to as "direct" methods. As stated above, these are straightforward and anatomically based. The other type of method is referred to as "indirect." These methods are based on the acceptance of an inherent and palpable respiratory rhythm, or "motility," of the organs. We are limiting our investigations to "direct" methods. Our findings will not inform the practice or possible mechanisms of "indirect" methods.

Susan, can you talk a bit about where we have come with abdominal massage? When I trained in massage therapy, visceral massage meant "clockwise circles" on the abdomen to encourage relief from constipation. The methods are very old, with evidence of similar practice in Mayan records. The relevance to medical practice is more recent, with the advent of more frequent pelvic surgeries due to cancer and more frequent Cesarean births. Postoperative adhesions are almost ubiquitous and cause many complications, such as infertility, small-bowel obstruction and pain.

Currently, the methods are performed primarily by massage therapists and osteopaths, with the intention of relieving adhesions. The methods I practice are not mysterious: the abdomen and organs are palpated for movements and movement restrictions, and we work toward restoring movements, like other manual therapies. However, other than our first papers,[1-2] there is no evidence that supports the utility or use of the modality outside of the known beneficial effects on constipation. Having data to support the use of visceral mobilization to reduce post-operative adhesions could save the health care system significant resources.

Geoff, can you give us a synopsis of the experiments you will perform, and what you think you will find? We have already published that a seasoned therapist can palpate and affect postoperative adhesions in our rat model, and also that relatively non-specific mobilization of the abdomen reduces the duration of postoperative ileus and prevents adhesions from forming, at least in the short term. Our experiments will extend these findings and inform the timing and duration of the interventions.

We're most excited to examine possible mechanisms of action for the methods. We have shown that the treatments reduce intraperitoneal inflammation – but how? The possibilities could be as simple as some as-yet-unknown effect of passive movement, but could include the manual triggering of vago-vagal reflexes. Such experiments will inform mechanistic studies on this and similar topics.

What are your plans for the future in terms of this research? We hope to translate our findings to human studies as soon as possible. Postoperative ileus is being assessed following every surgery, so the outcome measurements are already in place. We need to better understand the methods, as well as perform some studies on safety. Other experiments are planned, such as the potential impact of abdominal massage on postoperative pain, and the definition of the optimal window of opportunity for the best effects of the treatment. Establishing in our models whether there is a neural component to the effects, details of the relationship between ileus and adhesions, and whether their are effects on the fibrinolytic system, will be a good start toward recognizing the mechanism of action. We envision a routine role for therapists for postoperative care within hospitals.

References

1. Bove GM, Chapelle SL. Visceral mobilization can lyse and prevent peritoneal adhesions in a rat model. *J Bodywork Mov Ther*, 2012;16:76-82.
2. Chapelle SL, Bove GM. Visceral massage reduces postoperative ileus in a rat model. *J Bodywork Mov Ther*, 2013;17:83-8.

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