

Spa Therapy: Panacea or Placebo?

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## Spa Therapy Panacea or Placebo?

Finding relief from low back pain has become a major preoccupation of a substantial fraction of the population in industrialized countries. Numerous treatments have been devised to treat low back pain and large numbers of health care providers, pharmaceutical companies, and equipment manufacturers are benefiting from the demand for pain relief. Unfortunately, few of the myriad treatments have been studied adequately and only a few have even a moderate amount of scientific evidence to support their effectiveness.<sup>1</sup>

The use of nonconventional or "alternative" therapies has become extremely popular in the United States particularly for musculoskeletal problems such as low back pain.<sup>2</sup> Although there is a moderate amount of evidence supporting the effectiveness of spinal manipulation for low back pain,<sup>1</sup> there have been few, if any, high quality studies evaluating other alternative therapies often used in the United States, such as massage or acupuncture.<sup>3</sup>

Constant et al<sup>4</sup> evaluate a treatment for low back pain, spa therapy, that would be considered alternative in the United States but is in common use in France and other European countries. It is remarkable that the French Social Security Office reimbursed the cost of spa therapy for more than 600,000 patients in 1994, many of whom had chronic low back pain. Spa therapy has a long history in Europe as a credible and socially sanctioned medical treatment. In the United States, by contrast, spa therapy generally is viewed as a luxury used by the wealthy to help them relax. Thus, it is difficult to imagine that a back pain treatment that included hot mineral baths, mud packs, and massage would ever be reimbursed by insurance in this country. But why not? If spa therapy (or any other alternative treatment) can be found to be a safe and cost-effective alternative to more conventional therapies (some of which have signifi-

cant risks of adverse effects), reimbursement should quickly follow.

Based on the results of this and earlier studies, should spa therapy be added to the already long list of conventional and alternative treatments used for low back pain in the United States? Although the results of this study are promising, the authors were able to identify only two previous studies of spa therapy for low back pain, including one of their own and another in Hungary.<sup>5,6</sup> Despite the authors' claim that both of these studies reported positive effects, the Hungarian study found balneotherapy, underwater traction bath, and underwater massage equivalent in their effects on pain, use of analgesics, spinal motion, and straight leg raising.<sup>6</sup> Thus, it appears that the authors of the current study have published the only randomized trials of spa therapy with positive results. Thus, before spa therapy can be recommended in this country, additional studies by independent investigators are needed.

The Constant study has many strengths, many of which are rarely found in studies of alternative therapies: subjects were allocated randomly to treatment, a control group was included, the sample size was moderately large, the follow-up rate was high, and a broad range of low back pain-specific and general health status outcomes were measured. Nevertheless, the study was unable to answer four important questions:

1. Could the positive findings have resulted from patient expectations?
2. Would the positive effects persist beyond 3 months?
3. Were the benefits worth the costs?
4. Which aspect of the spa treatment was responsible for the improved outcomes?

Could the apparent benefits of spa therapy be attributable to expectations of improvement among subjects assigned to spa therapy or expec-

tations of no improvement among subjects randomized to the no treatment control group? The authors' recognition of the potential for significant disappointment among subjects assigned to no treatment is reflected by their having promised spa therapy to these subjects after completion of the trial. Although the extent to which the benefits attributed to spa therapy resulted from differences in baseline expectations among subjects in the treatment and control groups is not clear, such placebo effects have been well documented in other studies and cannot be ruled out in this one.

Because outcomes were not measured after 3 months, it is not known how long the beneficial effects of spa therapy persist. Unfortunately, chronic low back pain is, by definition, a continuous or recurrent problem. Persons experiencing such positive effects from spa therapy are likely to wish to have additional therapy once the pain returns, potentially resulting in large increases in the future demand for this treatment, especially if such treatments are reimbursed by insurance. Thus, unless access is limited, the shorter the effect of spa therapy, the greater the risk of increasing the demand for (and cost of) subsequent treatments.

Another limitation of this study is the lack of any data on the costs of spa therapy. Subjects made 18 visits, each of which included 45 minutes of treatment (13.5 hours total). Because this study was conducted in a village with a spa resort, travel time was minimal and there was no need for overnight accommodations. However, such additional expenses would be incurred by patients who do not live near a spa.

The most interesting question about the results of this study is which component(s) of the overall treatment package was (were) responsible for the positive findings? Although the authors should not be faulted for evaluating spa therapy as it usually is provided, the study design did not permit disentanglement of the various specific and non-specific components. The fundamental question is: was the benefit of the treatment attributable to any or all of the specific components of the spa therapy (eg, mud, minerals, or massage), to the immersion in hot water, or to the opportunity to relax for 45 minutes, 6 times a week? Future studies should consider the inclusion of comparison groups that control for important components of such therapies. This might include a group that lies down on a comfortable bed for 45 minutes or

a group that immerses in hot water without minerals, mud packs, or massage.

Regardless of the underlying mechanisms, the breadth of the benefits attributable to spa therapy in this study are remarkable. Not only did subjects receiving spa therapy experience reduced pain and improved function, they also experienced improved physical and mental quality of life, increased flexibility, decreased anxiety and depression, and increased self-esteem. Few, if any, previously studied treatments for chronic low back pain have been found to have such a broadly beneficial impact. In fact, few of these treatments have been found useful, even for back pain!

The finding that spa therapy led to reduced pain as well as improved mental health, raises the question of which (if either) occurred first. Did the relaxation and pleasant spa experience lead to reduced stress and tension and elevated mood, which in turn led to diminished pain and therefore improved function? Because pain is a subjective experience, such a chain of events is conceivable. Alternatively, did spa therapy (or at least the local application of mud) diminish pain by relaxing the back muscles which in turn led to improved mental status? This distinction has practical importance. In the first scenario, spa therapy can be viewed as a valuable treatment for a wide variety of problems including anxiety and depression as well as back pain. In the second scenario, spa therapy may merely be an effective treatment for chronic back pain whose relieved victims become elated by their rescue from prolonged agony. In both scenarios, spa therapy sounds almost too good to be true.

If future studies confirm that spa therapy has broadly beneficial effects or, even if it is found effective only for relieving chronic back pain, the challenge will be to find cost-effective and culturally acceptable ways of incorporating it (or its effective subcomponents) into our health care system. It is of course, possible that there is no need for the mineral water or the mud pack, and that a series of Swedish massages, hot baths or meditation sessions would be equally effective, not to mention less costly and more convenient. The Constant study has identified some exciting new directions for future research which have the potential to lead to dramatic changes in conventional views of both the causes of and treatments for common illnesses. If these findings are confirmed by other researchers, the conventional American view that "feel good" or relaxing inter-

ventions, such as spa therapy, massage, or meditation, are luxuries and unworthy of insurance coverage may need to be reconsidered.

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### References

1. **Bigos S, Bowyer O, Braen G, et al.** Acute low-back pain problems in adults. Clinical Practice Guideline No. 14. Rockville, MD: Agency for Health Care Policy and Research, 1994. AHCPR publication no. 95-0642.

2. **Eisenberg DM, Kessler RC, Foster C, Norlock FE, Calkins DR, Delbanco TL.** Unconventional medicine in the United States: Prevalence, costs, and patterns of use. *N Engl J Med* 1993;328:246.

3. **National Institutes of Health.** Proceedings of National Institutes of Health Consensus Development Conference on Acupuncture, November 3-5, 1997. Bethesda, MD: NIH, 1998.

4. **Constant F, Guillemin F, Clooin JF, Boulange M.** Spa therapy appears to improve the quality of life of sufferers from chronic low back pain. *Med Care* 1998;36:1309.

5. **Constant F, Collin JF, Guillemin F, Boulange M.** Effectiveness of spa therapy: A randomized clinical trial. *J Rheumatol* 1995;22:1315.

6. **Konrad K, Tatrai T, Hunka A, Vereckei E, Korondi I.** Controlled trial of balneotherapy in treatment of low back pain. *Ann Rheum Dis* 1992;51:820.