Cryotherapy Research Lacks Patient-Focused Outcomes

I would like to comment on the editorial published in the May/June 2020 issue entitled “21st Century Attacks on Cryotherapy in Sports Health Care—Clinician Beware,” written by Long and Jutte. I have an interest in cryotherapy, especially on its effect, if any, on return to play following athletic injuries. I agree with the authors that online posts and discussion boards are not the places for clinicians to receive information, but the bigger issue might be that they have nowhere else to go on this clinical topic.

There is a lack of support for cryotherapy from peer-reviewed literature that in my opinion justifiably questions the effectiveness of cryotherapy except for pain management. In a 2004 systematic review, Hubbard et al reported that there were only 2 studies that reported cryotherapy enhanced recovery following ankle sprains, but both had significant methodological concerns. More than 16 years later, little has changed and, using principles of evidence-based practice, the Strength of Recommendation Taxonomy (SORT) grade of cryotherapy is consistently graded as a “C” defined as based on consensus, usual practice, and opinion. When asked what is the clinical benefit of cryotherapy as it relates to sports injury management, I simply state, pain management, as referenced in your editorial. Anything beyond that, including “second-ary injury” from my experience, is speculation.

Thank you for your editorial. I hope that it will stimulate clinicians and researchers to seek answers to these important and still unanswered questions. I agree with your final sentence that “Clinicians should beware of false and inaccurate claims about cryotherapy,” but they should also be wary of claims and suggestions of benefits that are not supported by patient-focused outcomes.

Michael G. Dolan, MA, ATC, CSCS
Buffalo, New York

REFERENCES

The author has no financial or proprietary interest in the materials presented herein.

Reply

We thank Mr. Dolan for his comments regarding our recent editorial “21st Century Attacks on Cryotherapy in Sports Health Care—Clinician Beware.” We hope clinicians find this dialogue useful for improving patient care and consider participating in a clinical study that helps further our understanding.

We wholeheartedly agree with Mr. Dolan’s point that there is a lack of patient outcome measures and high-quality clinical research with regard to cryotherapy. However, we need data on the clinical effects of cryotherapy measured by both patient AND disease-oriented outcomes to improve our dosing of cryotherapy and patient care.

Despite the limited clinical outcome knowledge, there is physiological evidence to suggest that cryotherapy may be beneficial in increasing the survival of undamaged tissue surrounding the site of damaged tissue. For this reason, we are asking clinicians to not disregard the basic science. Rather, we argue that clinicians need a strong understanding of physiological events associated with healing and how any therapeutic modalities such as cryotherapy or the Rest, Ice, Compression, Elevation, and Stabilization (RICES) protocol can influence those physiological events.

Again, we thank Mr. Dolan for his comments. We hope those individuals who are consumers of therapeutic modality research will...
continue to develop research questions and seek out answers that will enhance current clinical practice.

Blaine C. Long, PhD, AT, ATC
Lisa S. Jutte, PhD, AT, ATC
Mount Pleasant, Michigan

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