HEART OF THE MATTER

Exercise in Heart Failure

BY SIDNEY GOLDSTEIN, M.D.

Dr. George Burch, one of the great leaders in cardiology in the mid-20th century, wrote in a 1954 monograph that "the patient with moderate or severe congestive heart failure should be placed at bed rest immediately." As a result, many patients were kept in bed for many weeks. This was the considered recommendation of many cardiologists, who had at the time little else to offer to their patients.

In the half century that followed, we learned a great deal about exercise physiology and its role in rehabilitating patients after an acute myocardial infarction. It is now part of the standard care of such patients.

More recently, a large body of clinical data has emerged providing insight into the role of exercise in the patient with heart failure. These studies suggest that, contrary to previous concerns, exercise training may be safe and can lead to improved cardiac physiology. There is now significant evidence that exercise training improves exercise performance, increases peak oxygen consumption, reduces both muscle and systemic sympathetic activity, and favorably modifies systemic and tissue inflammatory markers.

©PAVEL LOSEVSKY/ISTOCKPHOTO.COM

It's time to consider making exercise therapy a standard, reimbursable treatment for heart failure.

On the basis of these physiologic studies, several clinical trials were performed in the past decade and reported clinical benefits associated with exercise training in heart failure. Although most of the studies have been small, they tended to reinforce the safety and physiologic benefits of exercise training. These studies were designed to include a broad spectrum of patients with varying degrees of heart failure, such as elderly patients, who are becoming an increasingly large part of the heart failure population.

As a result of the progress in this field, in 2002 the National Heart, Lung, and Blood Institute embarked on HF-ACTION (Heart Failure: A Controlled Trial Investigating Outcomes of Exercise Training). The trial, involving more than 2,300 patients with New York Heart Association class I-IV heart failure with ejection fractions of less than 35%, tested the relative morbidity and mortality benefit of exercise training in those who also were receiving optimal medical therapy.

Patients were randomized to usual care or a supervised exercise program for a concentrated 3-month period of exercise 3 days a week for 4 months, followed by home exercise 5 days a week for 2 years (CARDIOLOGY NEWS, Dec. 2008, p. 24).

Although the trial did not achieve statistical significance in its primary goal of decreasing all-cause mortality or all-cause hospitalization, it did demonstrate a significant 14% decrease in the disease-specific clinical outcome of cardiovascular mortality or heart failure hospitalization. This effect on outcome is similar to that achieved with angiotensin receptor blockade when added to de novo heart failure patients. In addition, the trial further supported the safety of exercise therapy in heart failure.

Many institutions have cardiac rehabilitation programs that include patients with heart failure. In some programs, the therapy is paid for by a third party. In light of the outcomes of HF-ACTION, an important question arises as to whether this therapy, with an expense that might be similar to the cost of providing cardiac rehabilitation for acute myocardial infarction patients, should become part of our standard reimbursement for Medicare and all third parties as an intrinsic part of heart failure therapy. This will be an important issue at a time when the escalating cost of health care is under increasing scrutiny.

Nevertheless, the result of HF-ACTION provides an important additional modality of treatment for heart failure patients and answers the question regarding the safety of exercise. The HF-ACTION investigators will need to provide the information, and some guidance, as to which patients with heart failure can benefit the most from exercise therapy. ■

DR. GOLDSTEIN, medical editor of CARDIOLOGY NEWS, is professor of medicine at Wayne State University and division head emeritus of cardiovascular medicine at Henry Ford Hospital, Detroit.

LETTERS

Letters in response to articles in CARDIOLOGY NEWS and its supplements should include your name and address, affiliation, and conflicts of interest in regard to the topic discussed. Letters may be edited for space and clarity.

Mail: Letters, CARDIOLOGY NEWS, 5635 Fishers Lane, Suite 6000, Rockville, MD 20852

Fax: 240-221-2541

E-mail: cardnews@elsevier.com

Cardiology News

President, IMNG Alan J. Imhoff

Editor in Chief Mary Jo M. Dales

Executive Editors Denise Fulton, Kathy Scarbeck

Publication Editor Catherine Hackett

Senior Editors Christina Chase, Kathryn DeMott, Lori Buckner Farmer, Joyce Frieden, Keith Haglund, Gwendolyn B. Hall, Gina L. Henderson, Sally Koch Kubetin, Teresa Lassman, Mark S. Lesney, Jane Salodof MacNeil, Catherine Cooper Nellist, Amy Pfeiffer, Calvin Pierce, Terry Rudd, Robin Turner, Elizabeth Wood

Associate Editors Lorinda Bullock, Jay C. Cherniak, Richard Franki, Randall Frey, Renée Matthews, Denise Napoli, Leanne Sullivan

Reporters *Chicago:* Patrice Wendling; *Denver:* Bruce Jancin; *London:* Jonathan Gardner; *Los Angeles:* Betsy Bates; *Miami:* Damian McNamara; *Mid-Atlantic:* Michele G. Sullivan; *New England:* Diana Mahoney; *New York:* Mary Ellen Schneider, Nancy Walsh; *Orlando:* Fran Lowry; *Philadelphia:* Mitchel L. Zoler; *San Diego:* Doug Brunk; *San Francisco:* Sherry Boschert, Robert Finn; *Southeast:* Sharon Worcester; *Washington:* Alicia Ault, Jeff Evans, Elizabeth Mechcatie, Heidi Splete, Miriam E. Tucker, Kerri Wachter

Contributing Writers Christine Kilgore, Mary Ann Moon

Copy Editors *Chief:* Felicia R. Black; *Assistant Chief:* Carol Nicotera-Ward; Therese Borden, Julia Duncan, Mimi Harrison, Virginia Ingram-Wells, Jane Locastro

Editorial Offices 5635 Fishers Lane, Suite 6000, Rockville, MD 20852, 877-524-9336, cardiologynews@elsevier.com

CARDIOLOGY NEWS is an independent newspaper that provides the practicing specialist with timely and relevant news and commentary about clinical developments in the field and about the impact of health care policy on the specialty and the physician's practice.

The ideas and opinions expressed in CARDIOLOGY NEWS do not necessarily reflect those of the Publisher. Elsevier Inc. will not assume responsibility for damages, loss, or claims of any kind arising from or related to the information contained in this publication, including any claims related to the products, drugs, or services mentioned herein.

POSTMASTER Send changes of address (with old mailing label) to CARDIOLOGY NEWS Circulation, 60 Columbia Rd., Bldg. B, 2nd flr., Morristown, NJ 07960.

CARDIOLOGY NEWS (ISSN 1544-8800) *is published monthly by Elsevier Inc., 60 Columbia Rd., Bldg. B, 2nd flr., Morristown, NJ 07960, 973-290-8200, fax 973-290-8250. Subscription price is $95.00 per year.*

Executive Director, Operations Jim Chicca

Director, Production/Manufacturing Yvonne Evans

Production Manager Judi Sheffer

Production Specialists Victor De la Cruz, Anthony Draper, Tracey Law, Rebecca Slebodnik

Information Technology Manager Doug Sullivan

Senior Systems Administrator Lee J. Unger

Systems Administrator/Application Support Peter Ayinde

Operations Assistant Melissa Kasimatis

Creative Director Louise A. Koenig

Design Supervisor Elizabeth Byrne Lobdell

Senior Designers Sarah L. Gallant, Julie Keller

Design Staff Yenling Liu, Lisa M. Marfori

Photo Editors Rebecca Gardner, Vivian E. Lee

Project Manager Susan D. Hite

Assignments Manager Megan Evans

Department Coordinator Vicki Long

Accounts Payable Coordinator Daniela Silva

V.P., Med. Ed./Bus. Development Sylvia H. Reitman

Program Manager, Med. Ed. Malika Wicks

Senior Director, Marketing/Research Janice Theobald

Circulation Analyst Barbara Cavallaro, 973-290-8253, bcavallaro@elsevier.com

Marketing Associate Jennifer Savo

Director of Sales Mark E. Altier, 973-290-8220, m.altier@elsevier.com

Sales Director, IMNG Phil Soufleris, 973-290-8224, p.soufleris@elsevier.com

National Account Manager Christy Tetterton, 973-290-8231, c.tetterton@elsevier.com

Business Controller Dennis Quirk

Adv. Services Manager Joan Friedman

Credit Supervisor Patricia H. Ramsey

Manager, Administration/Conventions Lynne Kalish

Sales Assistant Karen Benarzi

Receptionist Linda Wilson

Advertising Offices 60 Columbia Rd., Bldg. B, 2nd flr., Morristown, NJ 07960, 973-290-8200, fax 973-290-8250

Classified Sales Manager Brian Vishnupad, 212-633-3129, fax 212-633-3820, b.vishnupad@elsevier.com

Classified Advertising Offices 360 Park Ave. South, 9th flr., New York, NY 10010, 212-462-1950

Address Changes Fax change of address (with old mailing label) to 973-290-8245 or e-mail change to subs@elsevier.com

Reprints Call 240-221-2419

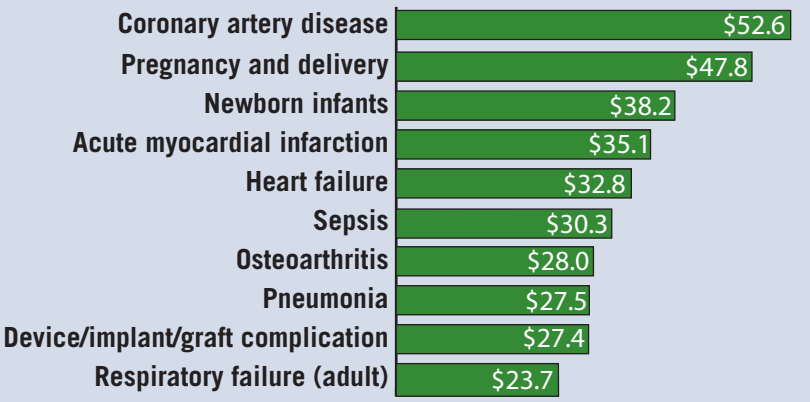
INTERNATIONAL MEDICAL NEWS GROUP

BPA

VITAL SIGNS

10 Most Expensive Conditions Treated in Hospitals

(total national bill in billions of dollars)



Note: Based on data from the 2006 Nationwide Patient Sample.
Source: Agency for Healthcare Research and Quality

ELSEVIER GLOBAL MEDICAL NEWS