

www.mayoclinicproceedings.org







Table of Contents

February 2016

Volume 91

Number 2

The March online issue of Proceedings will be available by Tuesday, March 1.

Sign up for an alert to the online Table of Contents at www.mayoclinicproceedings.org

### **Editorial**

125 Cardiac Rehabilitation: The Mandate Grows

Daniel E. Forman

# Original Articles

129 High Exercise Capacity Attenuates the Risk of Early Mortality After a First Myocardial Infarction:
The Henry Ford Exercise Testing (FIT) Project

Gabriel E. Shaya, Mouaz H. Al-Mallah, Rupert K. Hung, Khurram Nasir, Roger S. Blumenthal, Jonathan K. Ehrman, Steven J. Keteyian, Clinton A. Brawner, Waqas T. Qureshi, and Michael J. Blaha

Each 1-metabolic equivalent increment in exercise capacity was associated with an 8% to 10% reduction in risk of early mortality following a first myocardial infarction.

140 Cardiac Rehabilitation Program Adherence and Functional Capacity Among Women: A
Randomized Controlled Trial

Sherry L. Grace, Liz Midence, Paul Oh, Stephanie Brister, Caroline Chessex, Donna E. Stewart, and Heather M. Arthur

Overall, women in this study attended only half of prescribed cardiac rehabilitation exercise sessions, whether supervised mixed-sex, supervised women-only, or home-based.

149 Association Between Early Cardiac Rehabilitation and Long-term Survival in Cardiac Transplant Recipients

Andrew N. Rosenbaum, Walter K. Kremers, John A. Schirger, Randal J. Thomas, Ray W. Squires, Thomas G. Allison, Richard C. Daly, Sudhir S. Kushwaha, and Brooks S. Edwards

This is the first study to demonstrate that early cardiac rehabilitation participation following heart transplant is associated with long-term survival.

157 Impaired Heart Rate Response to Exercise in Diabetes and Its Long-term Significance
Nóra Sydó, Tibor Sydó, Béla Merkely, Karina Gonzales Carta, Joseph G. Murphy, Francisco Lopez-Jimenez,
and Thomas G. Allison

Patients with diabetes often have an impaired heart rate response to exercise, which is predictive of excess long-term mortality.



166 Determining the Importance of Meeting Muscle-Strengthening Activity Guidelines: Is the Behavior or the Outcome of the Behavior (Strength) a More Important Determinant of All-Cause Mortality?

Scott J. Dankel, Jeremy P. Loenneke, and Paul D. Loprinzi

Muscle strength, rather than participation in muscle-strengthening activity, may be more beneficial for reducing the risk of premature all-cause mortality.

175 Heavy Testosterone Use Among Bodybuilders: An Uncommon Cohort of Illicit Substance Users Mary E. Westerman, Cameron M. Charchenko, Matthew J. Ziegelmann, George C. Bailey, Todd B. Nippoldt, and Landon Trost

Anabolic-androgenic steroid users predominantly represent an educated, employed, married, and higher-earning group. Laboratory test abnormalities and adverse effects are common and should be considered when counseling these patients.

183 Epidemiology of Sarcoidosis 1946-2013: A Population-Based Study
Patompong Ungprasert, Eva M. Carmona, James P. Utz, Jay H. Ryu, Cynthia S. Crowson,
and Eric L. Matteson

Although most patients with sarcoidosis had intrathoracic involvement, less than half had respiratory symptoms, and overall mortality was similar to that of the general population.

Increased Risk of Mesenteric Ischemia in Patients With Alcohol Use Disorder: A Population-Based Retrospective Cohort Study

Chih-Wei Wei, Yu-Chiao Wang, Dong-Zong Hung, Yu-Ting Chung, Wei-Kung Chen, and Chia-Hung Kao

Physicians should carefully consider the alcohol history of patients who complain of abdominal pain and respond poorly to treatment, because alcohol use disorder is a risk factor for mesenteric ischemia, a surgical emergency.

196 Association of Slopes of Estimated Glomerular Filtration Rate With Post—End-Stage Renal Disease Mortality in Patients With Advanced Chronic Kidney Disease Transitioning to Dialysis

Keiichi Sumida, Miklos Z. Molnar, Praveen K. Potukuchi, Fridtjof Thomas, Jun Ling Lu, Jennie Jing, Vanessa A. Ravel, Melissa Soohoo, Connie M. Rhee, Elani Streja, Kamyar Kalantar-Zadeh, and Csaba P. Kovesdy Rapid estimated glomerular filtration rate decline is associated with higher all-cause and cardiovascular mortality among incident dialysis cases.

208 Association of Mild Cognitive Impairment With Exposure to General Anesthesia for Surgical and Nonsurgical Procedures: A Population-Based Study

Juraj Sprung, Rosebud O. Roberts, David S. Knopman, Diana M. Olive, Jennie L. Gappa, Valerie L. Sifuentes, Travis L. Behrend, Joel D. Farmer, Toby N. Weingarten, Andrew C. Hanson, Darrell R. Schroeder, Ronald C. Petersen, and David O. Wamer

These data do not exclude the possibility that anesthetic exposures occurring later in life may be associated with an increase in the rate of incident mild cognitive impairment, especially in patients undergoing vascular surgery.

# **Brief Report**

ег 2

ause

ie risk

**Isers** 

oldt,

ning

seling

and.

d

rgical

nal

lavel,

nong

and

15,

iated

inued

218 Centromedian-Parafascicular Complex Deep Brain Stimulation for Tourette Syndrome: A Retrospective Study
Paola Testini, Cong Z. Zhao, Matt Stead, Penelope S. Duffy, Bryan T. Klassen, and Kendall H. Lee

### Review

Focused Cardiovascular Care for Women: The Need and Role in Clinical Practice

Mariana Garcia, Virginia M. Miller, Martha Gulati, Sharonne N. Hayes, JoAnn E. Manson, Nanette K. Wenger,
C. Noel Bairey Merz, Rekha Mankad, Amy W. Pollak, Jennifer Mieres, Juliana Kling, and Sharon L. Mulvagh

Please note that articles with an "e" page designation are available only in the online version of the Journal at www.mayoclinicproceedings.org

### Residents' Clinic

241 47-Year-Old Man With Pruritus John C. Reneau and Mrinal M. Patnaik

e23 61-Year-Old Man With Chronic Diarrhea

Alexander Podboy, Bradley W. Anderson, and Seth Sweetser

# Symposium on Pain Medicine—CME Credit Offered

246 Advanced Innovations for Pain
Tim J. Lamer, Timothy R. Deer, and Salim M. Hayek

# Symposium on Neoplastic Hematology and Medical Oncology—CME Credit Offered

259 Chronic Myelomonocytic Leukemia: Focus on Clinical Practice

Mrinal M. Patnaik and Ayalew Tefferi

#### Letters to the Editor

273 Perioperative Delirium and Mild Cognitive Impairment

Juraj Sprung, Rosebud O. Roberts, David S. Knopman, Ronald C. Petersen, Toby N. Weingarten,

Darrell R. Schroeder, and David O. Warner

### Medical Images

275 Trichobezoar

Maria Paparoupa and Frank Schuppert •••

# Path to Patient Image Quiz

Young Female Patient With a Hepatic Adenoma: Determining Risk for Malignant Transformation
Soundk Gupta and Lori A. Erickson

Ge

Chi acci Puk hsh Resi Ped Pos Cus Cor Res in h Res Pho ماله requ for Spe mak

Dan and

6CL

coni

Peri m C

853

inch

publ

mate publ

a ret phot

Disc

injui or a idea:

dard

# Art at Mayo Clinic

e31 Mayo Clinic's Flower of Hope<sup>TM</sup>
Margaret R. Wentz

### Other Features

276 Correction

29A Professional Opportunities

# Coming Soon...

Natural History of Nonobstructive Hypertrophic Cardiomyopathy

Childhood ADHD, Sex, and Obesity

Association Between Zolpidem and Suicide

Outcomes Following Percutaneous Thermal Ablation of Oligometastatic Melanoma

Head and Neck Squamous Cell Cancer

Correspondence on Lowering the High Cost of Cancer Drugs

### Icon Key

This article has been given "Editor's Choice" distinction.

An author interview accompanies this article.

This article is online only at www.mayoclinicproceedings.org.

Supplemental material accompanies this article at www.mayoclinicproceedings.org.

MAYO CLINIC "Mayo Clinic Proceedings," "Mayo,"
"Mayo Clinic," and the triple-shield Mayo
Clinic logo are all registered marks of
Mayo Foundation for Medical Education
and Research.

MAYO CLINIC PROCEEDINGS (ISSN 0025-6196) is published monthly by Elsevier on behalf of Mayo Foundation for Medical Education and Research. Periodicals postage paid at New York, NY, and additional mailing offices. POST MASTER: Send address changes to Mayo Clinic Proceedings Customer Service, 3251 Riverport Lane, Maryland Heights, MO 63043.



© 2016 Mayo Foundation for Medical Education and Research

Supplemental material attached to journal articles has not been edited, and the authors take responsibility for the accuracy of all data.