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ARTICLES

The Effect of a Plant-Based Diet on Plasma Lipids in Hypercholesterolemic Adults. A Randomized Trial 725

C.D. Gardner, A. Coulston, L. Chatterjee, A. Rigby, G. Spiller, and J.W. Farquhar

Some plants contain components that reduce low-density lipoprotein (LDL) cholesterol level. In this study, people on a diet low in saturated fat were randomly assigned to consume plant foods rich in LDL cholesterol-lowering components or low-fat convenience foods. The plant-based diet reduced LDL cholesterol more than the control diet.

Cost-Effectiveness of Alendronate Therapy for Osteopenic Postmenopausal Women 734

J.T. Schousboe, J.A. Nyman, R.L. Kane, and K.E. Ensrud

The value of drug treatment to prevent fractures in postmenopausal women who have osteopenia (bone mass between normal and the mass seen with osteoporosis) is in dispute. In this study, alendronate therapy was not cost-effective for osteopenic postmenopausal women with no history of clinical fractures or other risk factors for fracture.

Advanced Lipoprotein Testing Does Not Improve Identification of Subclinical Atherosclerosis in Young Adults: The Bogalusa Heart Study 742

W.S. Tzou, P.S. Douglas, S.R. Srinivasan, W. Chen, G. Berenson, and J.H. Stein

In this study, advanced lipoprotein testing using vertical-spin density-gradient ultracentrifugation did not improve prediction of carotid intima-media thickness in 311 young adults compared with models using total cholesterol, low-density lipoprotein cholesterol, and high-density lipoprotein cholesterol. Advanced testing does not improve cardiovascular risk assessment in this population.

Brief Communication: Hematogenous Dissemination in Early Lyme Disease 751

G.P. Wormser, D. McKenna, J. Carlin, R.B. Nadelman, L.F. Cavaliere, D. Holmgren, D.W. Byrne, and J. Nowakowski

In this study, 43.7% of 213 untreated adults with erythema migrans had spirochetemia. Spirochetemic patients were more likely to have multiple erythema migrans lesions, to remember a tick bite at the site of an erythema migrans lesion, to have a first episode of Lyme disease, to be lymphopenic, and to be older than age 55 years.

IMPROVING PATIENT CARE

Five System Barriers to Achieving Ultrasafe Health Care 756

R. Amalberti, Y. Auroy, D. Berwick, and P. Barach

Health care is not as safe and reliable as it might be. Airlines, on the other hand, have an excellent safety record. Other than perhaps anesthesiology, medicine has been slow to adopt error reduction techniques that have made some industries very safe. This article explains why health care should adapt the quality improvement strategies of ultrasafe industries.

REVIEWS

Meta-Analysis: Exercise Therapy for Nonspecific Low Back Pain 765

J.A. Hayden, M.W. van Tulder, A.V. Malmivaara, and B.W. Koes

This meta-analysis found that exercise therapy has a small beneficial effect on pain and function in adults with chronic low back pain. In subacute low back pain, some evidence suggests that a graded-activity program reduces absenteeism. In acute low back pain, the effect of exercise therapy is equivalent to that of no treatment or other conservative treatments.

Systematic Review: Strategies for Using Exercise Therapy To Improve Outcomes in Chronic Low Back Pain 776

J.A. Hayden, M.W. van Tulder, and G. Tomlinson

This systematic review found that 2 features of exercise therapy for chronic nonspecific low back pain seem to be responsible for success: close supervision and an individually designed program.

Narrative Review: Alternative Causes for Elevated Cardiac Troponin Levels when Acute Coronary Syndromes Are Excluded 786

A. Jeremias and C.M. Gibson

An elevated troponin level is an important criterion for diagnosing non-ST-segment elevation myocardial infarction (MI). While normal troponin levels essentially "rule out" non-ST-segment elevation MI, elevated levels are not specific for acute coronary syndromes. However, even when a thrombotic acute coronary syndrome is not present, troponin elevation has prognostic value.

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EDITORIALS

Diet and Cholesterol Reduction 793

D.J.A. Jenkins, C.W.C. Kendall, and A. Marchie
 The recent update of the National Cholesterol Education Program Adult Treatment Panel III guidelines calls for renewed emphasis on lowering serum cholesterol levels. Gardner and colleagues' article in this issue shows that a primarily plant-based diet lowers cholesterol more than would be expected from its favorable fatty acid profile. This study helps to restore the concept that diet may play a role in achieving cholesterol targets, even in the age of powerful cholesterol-lowering drugs.

Osteopenia: To Treat or Not To Treat? 796

M.R. McClung
 In this issue, Schousboe and colleagues addressed the treatment of postmenopausal women with osteopenia from the perspective of cost-effectiveness. They found that alendronate is not cost-effective in postmenopausal women who are selected solely on the basis of low bone density. It is time to abandon the diagnosis of *osteopenia* based on bone mineral density values and give the term back to radiologists to describe decreased bone mineralization on radiographs.

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Resolution of Severe Digital Ulceration during a Course of Bosentan Therapy 802

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Correction

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MEDICAL WRITINGS

Book Notes: *Medical Management of Eating Disorders* 804

Reviewer: G. Nardone

Book Notes: *Multiple Sclerosis: Etiology, Diagnosis, and New Treatment Strategies* 804

Reviewer: J.T. Murray

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