

THIS WEEK in the JOURNAL

ORIGINAL ARTICLE

Thrombolysis with Alteplase 3 to 4.5 Hours after Acute Ischemic Stroke

Intravenous thrombolysis with alteplase improves the outcomes after acute stroke when alteplase is given within 3 hours after the onset of symptoms. In this randomized trial involving patients who presented between 3 and 4.5 hours after the onset of stroke, clinical outcomes were modestly better in patients treated with alteplase than in patients given placebo (favorable outcome in 52% vs. 45% of patients).

SEE P. 1317; EDITORIAL, P. 1393; CME, P. 1418

ORIGINAL ARTICLE

Drug-Eluting or Bare-Metal Stents for Acute Myocardial Infarction

In an analysis of patients undergoing coronary-artery stenting for acute myocardial infarction in Massachusetts, recipients of drug-eluting stents were compared with recipients of bare-metal stents in propensity-matched cohorts. Mortality rates and repeat target-vessel revascularization rates at 2 years were significantly lower with drug-eluting stents. The rates of reinfarction were reduced in patients with myocardial infarction without ST-segment elevation who were treated with drug-eluting stents.

SEE P. 1330

ORIGINAL ARTICLE

Intensive Lipid Lowering with Simvastatin and Ezetimibe in Aortic Stenosis

In this randomized, placebo-controlled trial, the combination of simvastatin and ezetimibe had no effect on the progression of aortic stenosis, despite substantial lowering of low-density lipoprotein cholesterol. There was a reduction in the need for coronary bypass surgery in the simvastatin–ezetimibe group, but unexpectedly, active treatment was also associated with an increased incidence of cancer.

SEE P. 1343; EDITORIALS, P. 1395, 1398, AND 1400; CME, P. 1419

SPECIAL ARTICLE

Analyses of Cancer Data from Three Ezetimibe Trials

The Simvastatin and Ezetimibe in Aortic Stenosis (SEAS) trial involving the combination of ezetimibe and simvastatin in patients with aortic stenosis suggested an increased incidence of cancer associated with the use of active therapy. The current analysis of two other ongoing trials of ezetimibe and simvastatin does not support the suggestion of an increased incidence of cancer but does show increased cancer mortality.

SEE P. 1357; EDITORIALS, P. 1398 AND P. 1400

MOLECULAR ORIGINS OF CANCER

Lung Cancer

The Molecular Origins of Cancer series continues with this review of molecular and genetic mechanisms of lung cancer. The authors review genetic susceptibility to lung cancer and four genes of importance in the evolution of the disease: *EGFR*, *KRAS*, the *PI3K–Akt–mTOR* complex, and *TTF1*. They also discuss gene profiling and protein profiling, with emphasis on the clinical value of these methods.

SEE P. 1367

CASE RECORDS OF THE MASSACHUSETTS GENERAL HOSPITAL

A Woman with a Mass in the Breast and a Solitary Lesion in the Spine

A 47-year-old premenopausal woman came to this hospital for treatment of breast cancer. A mass that measured 5 cm in diameter was present in the left breast; needle biopsies showed infiltrating ductal carcinoma that was grade 2 of 3, hormone receptor-positive, HER2/neu-negative. An evaluation of the staging disclosed a solitary lesion in the T6 vertebral body, which was asymptomatic. A management decision was made.

SEE P. 1382; CME, P. 1417

CLINICAL IMPLICATIONS OF BASIC RESEARCH

Cell Therapies for Muscular Dystrophy

A specific type of satellite cell can engraft dystrophic tissue in a mouse model of Duchenne's muscular dystrophy and can improve the strength and duration of muscle contractility.

SEE P. 1403