

# THIS WEEK in the JOURNAL

## ORIGINAL ARTICLE

### Erlotinib in Previously Treated Non–Small-Cell Lung Cancer

The efficacy of erlotinib in patients with non–small-cell lung cancer and relapse after treatment with conventional chemotherapy was tested in a placebo-controlled, double-blind trial. Erlotinib, an inhibitor of the epidermal growth factor receptor, was associated with responses in about 9 percent of patients and with prolonged survival in some cases.

The futility of further treatment of patients with non–small-cell lung cancer after a failure of response to one or two different chemotherapy regimens is well documented. This trial shows that erlotinib can help such patients and suggests further studies of the drug in less advanced disease.

SEE P. 123; EDITORIAL, P. 200

## ORIGINAL ARTICLE

### Erlotinib in Lung Cancer — Molecular and Clinical Predictors of Outcome

This companion to the clinical trial of erlotinib in patients with non–small-cell lung cancer studied the epidermal growth factor receptor (EGFR) protein and gene (*EGFR*) in tumor specimens obtained from the participants. Expression of EGFR by the tumor was associated with responsiveness to the drug but not with increased survival. Neither the number of copies of *EGFR* nor mutational status was associated with responsiveness or survival.

The striking finding in this study is that, in contrast to previous trials involving small numbers of patients, there was no association between the presence of *EGFR* mutations and the likelihood of a response to an EGFR inhibitor.

SEE P. 133; EDITORIAL, P. 200

## ORIGINAL ARTICLE

### Single-Chamber versus Dual-Chamber Pacing for High-Grade Atrioventricular Block

Patients with high-grade atrioventricular block usually require the implantation of a permanent pacemaker. Retrospective studies have suggested that dual-chamber pacemakers reduce the risk of atrial fibrillation, stroke, heart failure, and death in this setting, as compared with single-chamber ventricular pacemakers. In

a randomized trial comparing these two pacing methods, however, no significant advantage of dual-chamber pacing was demonstrated.

SEE P. 145; EDITORIAL, P. 202; CME, P. 218

## BRIEF REPORT

### Relapsing Systemic Inflammation and Human Herpesvirus 8 Infection

A 61-year-old immunocompetent woman had recurrent episodes of fever, lymphadenopathy, splenomegaly, synovitis, and rash. Although she was negative for human immunodeficiency virus infection, Kaposi's sarcoma developed. The relapsing inflammatory symptoms were associated with sharp increases in the levels of human herpesvirus 8 in plasma and of peripheral-blood mononuclear cells.

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## CLINICAL PRACTICE

### Screening for Osteoporosis

At her annual visit, a 60-year-old woman asks her physician whether she should have a bone-density test to screen for osteoporosis. The patient went through menopause at the age of 52 years and received postmenopausal hormone therapy for four years. She takes 500 mg of calcium twice daily and exercises regularly. She has no personal history of fractures, but her mother had a hip fracture at the age of 82. Her height is 63 in. and her weight is 120 lb. What should her physician advise?

SEE P. 164; CME, P. 217

## MECHANISMS OF DISEASE

### Tyrosine Kinases as Targets for Cancer Therapy

Tyrosine kinases, enzymes that catalyze the transfer of phosphate from ATP to tyrosine residues in polypeptides, are ubiquitous, numerous, and of considerable clinical interest because they participate in the development of cancer and have become choice targets for therapeutic intervention. This comprehensive review discusses the molecular and clinical aspects of tyrosine kinases.

SEE P. 172; CME, P. 219

## CASE RECORDS OF THE MASSACHUSETTS GENERAL HOSPITAL

### A Male Infant with Jaundice and Thrombocytopenia

A four-week-old male infant was admitted to the hospital because of jaundice and abdominal distention. Magnetic resonance imaging revealed decreased signal in the liver, pancreas, and heart, with nodularity of the liver. A diagnostic procedure was performed.

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