

This Week in the Journal

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ORIGINAL ARTICLES

High-Dose Chemotherapy with Hematopoietic Stem-Cell Rescue for High-Risk Breast Cancer

The efficacy of high-dose chemotherapy plus hematopoietic stem-cell rescue for breast cancer with axillary-lymph-node metastases was tested in a multicenter randomized trial. The advantage of the aggressive treatment over conventional therapy was marginal and was confined to women whose tumors expressed little or no HER2/*neu*.

This well-conducted and carefully analyzed study does not support the routine use of high-dose chemotherapy for high- and intermediate-risk breast cancer.

SEE PAGE 7; EDITORIAL, PAGE 80

High-Dose Chemotherapy and Stem-Cell Transplantation in High-Risk Breast Cancer

Women with breast cancer and at least 10 involved ipsilateral axillary lymph nodes were randomly assigned to receive postoperative (adjuvant) chemotherapy either alone or followed by high-dose chemotherapy plus hematopoietic stem-cell rescue. After six years, the outcome was the same in the two groups.

The concordant results of this trial and another similar study reported in this issue support the use of conventional chemotherapy in women with breast cancer and a high risk of recurrence.

SEE PAGE 17; EDITORIAL, PAGE 80

ORIGINAL ARTICLE

Nebulized Epinephrine in Acute Bronchiolitis

Pediatricians often treat infants who have acute bronchiolitis with inhaled epinephrine, but the efficacy of this treatment has not been established. In this randomized, double-blind, controlled trial involving 194 infants, treatment with nebulized epinephrine did not influence the length of the hospital stay or the respiratory rate.

These data suggest that nebulized epinephrine provides no benefit in the treatment of bronchiolitis.

SEE PAGE 27; EDITORIAL, PAGE 82

ORIGINAL ARTICLE

Treatment of ANCA-Associated Vasculitis

This randomized trial involved 144 patients who had generalized vasculitis associated with circulating autoantibodies to neutrophil cytoplasmic antigens (ANCA) that was in remission after initial treatment with cyclophosphamide. The rate of relapse was similar among patients receiving maintenance immunosuppressive treatment with azathioprine and among those receiving maintenance treatment with cyclophosphamide.

Early substitution of azathioprine for cyclophosphamide can reduce the rate of toxic effects associated with long-term cyclophosphamide treatment of ANCA-associated vasculitis.

SEE PAGE 36; PERSPECTIVE, PAGE 3

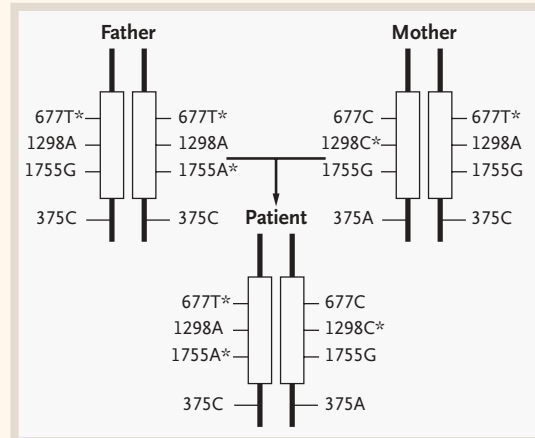
THIS WEEK IN THE JOURNAL

BRIEF REPORT

Nitrous Oxide and MTHFR Deficiency

Nitrous oxide irreversibly oxidizes the cobalt atom of vitamin B₁₂, inhibiting the cobalamin-dependent enzyme methionine synthase, which has a key role in many biochemical reactions that involve the nervous system. This case report concerns the neurologic deterioration and death of a child anesthetized twice, over a short period, with nitrous oxide before an inherited deficiency in 5,10-methylenetetrahydrofolate reductase (MTHFR), which is critical in similar metabolic pathways, was diagnosed.

SEE PAGE 45; PERSPECTIVE, PAGE 5

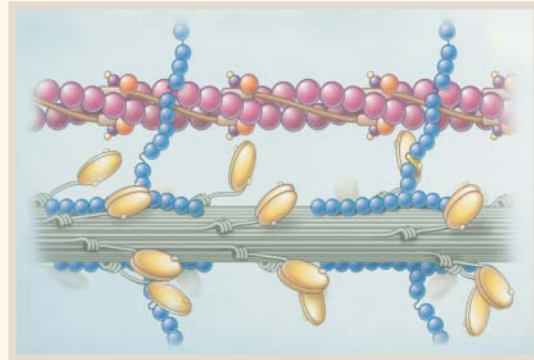


GENOMIC MEDICINE

Cardiovascular Disease

It is well known that cardiovascular diseases have a substantial heritable component, but the precise genetic variants responsible for this familial tendency have been hard to uncover. In this review, part of the Genomic Medicine series, Nabel describes the genetic basis of cardiovascular disorders that are inherited in a mendelian fashion. She also outlines the progress that has been made in identifying genes associated with common cardiovascular diseases.

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CLINICAL PRACTICE

Valvular Heart Disease in Pregnancy

A 29-year-old woman with a history of mitral stenosis who has a St. Jude Medical mitral-valve prosthesis presents for evaluation before attempting to conceive. She is concerned about the risks that pregnancy will confer on her and her child. How should she be evaluated and followed?

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CLINICAL PROBLEM-SOLVING

A Gut Feeling

A 79-year-old man reports an 18-kg weight loss over the previous six months. Seven months before admission, his house burned down and insomnia and anorexia developed. One month before admission, he began having diffuse abdominal pain that a proton-pump inhibitor did not improve.

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