The *Journal* welcomes submissions of manuscripts for the Clinical Problem-Solving series. This regular feature considers the step-by-step process of clinical decision making. For more information, please see **http://authors.nejm.org**.

This Week in the Journal

MARCH 25, 2004

ORIGINAL ARTICLE

High-Dose Chemotherapy and Stem-Cell Support in Aggressive Lymphoma

This study of the treatment of aggressive lymphoma in patients 60 years old or younger compared cyclophosphamide, doxorubicin, vincristine, and prednisone (CHOP), the standard treatment, with an immediate course of high-dose chemotherapy plus transplantation of autologous hematopoietic stem cells. The high-dose therapy was superior to CHOP for patients at high intermediate risk.

The results of this study are convincing, but ultimately they will have to be compared with those for CHOP plus rituximab, which is rapidly becoming the new standard of treatment for B-cell lymphomas.

SEE P. 1287; PERSPECTIVE, P. 1277

ORIGINAL ARTICLE

Gene Implicated in Fatal Surfactant Deficiency

This study describes the genetic cause of some cases of fatal surfactant deficiency in newborns. The gene encoding ATP-binding cassette transporter A3 (*ABCA3*) was mutated in 76 percent of a selected sample of 21 patients, and the patients with such mutations had abnormal lamellar bodies — the subcellular vesicles in which surfactant is stored.

The study suggests that families with a history of *ABCA3* mutations may benefit from genetic counseling and prenatal or preimplantation genotyping.

SEE P. 1296; PERSPECTIVE, P. 1278

ORIGINAL ARTICLE

Outcomes at School Age after Postnatal Dexamethasone Therapy for Lung Disease of Prematurity

In an earlier placebo-controlled trial, dexamethasone was administered to neonates as a treatment for respiratory distress syndrome. When children who had participated in that trial were about eight years of age, the investigators conducted a second study to determine the long-term effects of treatment. Children in the dexamethasone group were shorter, had smaller head circumferences, and had poorer scores than control children on a number of tests of cognitive and motor function.

The long-term adverse effects of dexamethasone treatment do not justify its postnatal use to treat respiratory distress syndrome of the newborn.

SEE P. 1304; EDITORIAL, P. 1349

BRIEF REPORT

Salt Wasting and Deafness Resulting from Mutations in Two Chloride Channels

Mutations in genes encoding chloride transporters cause Bartter's syndrome. An antenatal form associated with salt wasting and deafness has been observed in persons with mutations in *BSND,* the gene encoding barttin, a protein controlling the membrane insertion of two distinct chloride transporters. This report describes a child with the syndrome yet a normal *BSND* gene. The child had mutations in each of two genes encoding the chloride transporters ClC-Ka and ClC-Kb. The data provide strong evidence that barttin regulates ClC-type chloride channels and thus provide new insight into renal salt handling.

SEE P. 1314; PERSPECTIVE, P. 1281

CLINICAL PRACTICE

Hypertrophic Cardiomyopathy

A 28-year-old man presents with a two-year history of increasing dyspnea on strenuous exertion and is found to have hypertrophic cardiomyopathy, with a septal thickness of 23 mm and a left ventricular outflow gradient of 80 mm Hg. There is no family history of hypertrophic cardiomyopathy or sudden death. Forty-eight-hour Holter monitoring shows infrequent premature ventricular contractions. How should this patient be treated?

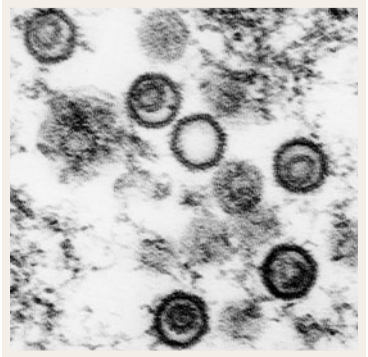
SEE P. 1320

MECHANISMS OF DISEASE

Persistence of the Epstein–Barr Virus and the Origins of Associated Lymphomas

This review of the life cycle of the Epstein–Barr virus (EBV) explains how EBV establishes lifelong infection in a host with protective immunity against the virus. The authors also discuss the role of EBV in the development of post-transplantation lymphoma, Hodgkin's disease, and Burkitt's lymphoma.

SEE P. 1328



SPECIAL REPORT

Embryonic Stem-Cell Lines from Human Blastocysts

This report, first published online on March 3, 2004, discusses the procedures used to develop 17 lines of human embryonic stem cells from the inner cell masses of blastocysts. These cell lines are available to researchers under a Material Transfer Agreement; according to current regulations, the cells cannot be used for research supported by federal funds. These cells are expected to facilitate research on a variety of serious chronic diseases.

SEE P. 1353; PERSPECTIVE, P. 1275; EDITORIAL, P. 1351