

This Week in the Journal

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ORIGINAL ARTICLES

Clinical Spectrum of Obesity and Mutations in the Melanocortin 4 Receptor Gene

Melanocortin 4 receptor (MC4R) deficiency is the most common form of monogenic obesity. To examine the clinical spectrum and mode of inheritance, the investigators determined the MC4R nucleotide sequence in 500 probands with severe childhood obesity. Twenty-nine had mutations in MC4R — 23 were heterozygous and 6 were homozygous. Homozygotes were more severely affected than heterozygotes.

Mutations in MC4R result in a distinct human obesity syndrome inherited in a codominant manner.

SEE PAGE 1085; EDITORIAL, PAGE 1160

Binge Eating and Mutations in the Melanocortin 4 Receptor Gene

Mutations in the genes for the melanocortin 4 receptor (MC4R), the leptin receptor, and proopiomelanocortin have been identified as potential causes of monogenic obesity. This study examined phenotypic data and eating behavior in severely obese persons. Binge eating was a characteristic of all subjects with MC4R mutations, though not of carriers of other mutations.

MC4R appears to be a candidate gene in the control of eating behavior.

SEE PAGE 1096; EDITORIAL, PAGE 1160

ORIGINAL ARTICLE

Soluble CD40 Ligand in Acute Coronary Syndromes

CD40 ligand is released from activated platelets and promotes inflammation and coagulation. In this study of patients with acute coronary syndromes, increased serum levels of soluble CD40 ligand were associated with an increased risk of death or non-fatal myocardial infarction. Increased soluble CD40 ligand levels also predicted a beneficial clinical response to the glycoprotein IIb/IIIa receptor inhibitor abciximab.

Measurement of soluble CD40 ligand in acute coronary syndromes may make it possible to target therapy with abciximab to the patients most likely to benefit from it.

SEE PAGE 1104; EDITORIAL, PAGE 1163

ORIGINAL ARTICLE

An Outbreak of Pneumococcal Conjunctivitis

In the winter of 2002, an outbreak of conjunctivitis affected 698 students at Dartmouth College in New Hampshire, including 22 percent of all first-year students. Risk factors included close contact with an affected student, wearing contact lenses, and visiting or living in a fraternity or sorority house. After the institution of preventive measures and after spring break, the outbreak subsided.

This large outbreak was due to unencapsulated pneumococci. The outbreak strain was identical to that implicated in similar outbreaks among college students in 1980.

SEE PAGE 1112; PERSPECTIVE, PAGE 1079

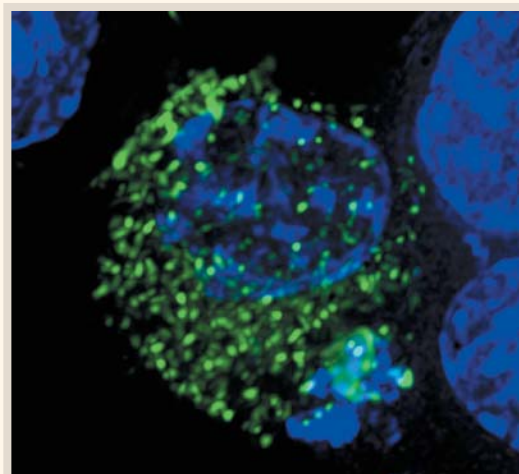
THIS WEEK IN THE JOURNAL

MECHANISMS OF DISEASE

**The Chromogranin–
Secretogranin Family**

The members of the chromogranin–secretogranin family of peptide hormones, biogenic amines, and neurotransmitters are enclosed within vesicles in the neuroendocrine system and a variety of neurons. These granins, the chief of which is chromogranin A, participate in sympathoadrenal activity and serve as markers of neuroendocrine tumors, especially pheochromocytoma.

SEE PAGE 1134



CURRENT CONCEPTS

Central Venous Catheterization

Central venous catheters permit the measurement of hemodynamic variables that cannot be measured accurately by noninvasive means. They also allow delivery of medications and nutritional support. More than 15 percent of patients, however, have a serious mechanical, infectious, or thrombotic complication related to the use of a central venous catheter. This review explains strategies for minimizing the frequency of such complications. An accompanying video shows techniques for catheter insertion by the internal jugular and subclavian routes.

SEE PAGE 1123

SOUNDING BOARD

Race and Genomics**Race in Research and Clinical Practice**

These two articles present contrasting views of the usefulness of the concept of race in biomedical research and clinical practice.

SEE PAGES 1166 AND 1170;
PERSPECTIVE, PAGE 1081

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