

THIS WEEK in the JOURNAL

ORIGINAL ARTICLE

Measles Outbreak in Indiana

In 2005, an outbreak of measles occurred that was traced to a student who had returned home to Indiana from a trip to Romania. At a gathering attended by the student, there were an estimated 50 people who lacked evidence of measles immunity, of whom 16 (32 percent) acquired measles. One health care worker also became infected, and severe respiratory distress developed, requiring ventilator support.

SEE P. 447; PERSPECTIVE, P. 440; CME, P. 538

ORIGINAL ARTICLE

Mutant Sulfonylurea Receptor as a Cause of Diabetes

In this study, mutations in the gene encoding the sulfonylurea receptor, a component of the beta-cell ATP-sensitive potassium channel, are described in infants with neonatal diabetes. Some of these infants were successfully weaned from insulin by treatment with sulfonylureas.

SEE P. 456; EDITORIAL, P. 507

ORIGINAL ARTICLE

Oral Sulfonylureas in Diabetes with Kir6.2 Mutation

The beta-cell ATP-sensitive potassium channel is made up of two subunits — SUR1 and Kir6.2 — and its normal function is critical to insulin secretion. This study shows that in 44 of 49 patients with diabetes caused by Kir6.2 mutations, treatment was successfully switched from subcutaneous injection of insulin to oral sulfonylureas.

SEE P. 467; EDITORIAL, P. 507

ORIGINAL ARTICLE

Validation of a Rule for Termination of Resuscitation in Out-of-Hospital Cardiac Arrest

A clinical prediction rule for the termination of resuscitation during out-of-hospital cardiac arrest was validated in a study of 1240 patients treated by emergency

medical technicians (EMTs) trained to use defibrillation. In arrests not witnessed by EMTs, there was no return of spontaneous circulation, no countershocks were administered, and the survival rate was 0.5 percent.

SEE P. 478; EDITORIAL, P. 510; CME, P. 537

MECHANISMS OF DISEASE

Chronic Venous Disease

This account of chronic venous disease summarizes the clinical aspects of the disorder and reviews the recent advances in studies of the hydrodynamic and biochemical changes that underlie the disorder.

SEE P. 488; CME, P. 539

CLINICAL PROBLEM-SOLVING

A Sharp Right Turn

A 60-year-old man presented to the emergency department for evaluation of rectal bleeding, syncope, and pain in the right leg. Five days earlier, diffuse abdominal pain that worsened with movement had developed in association with nausea, anorexia, and malaise. Shortly before admission, the patient had a single episode of gross hematochezia and hematuria followed by syncope, as well as intense pain in the right leg.

SEE P. 500

CLINICAL IMPLICATIONS OF BASIC RESEARCH

Inhibition of C-Reactive Protein and Myocardial Damage

A recent study in a rat model of coronary-artery occlusion shows that pretreatment with 1,6-bis(phosphocholine)-hexane inhibits increased myocardial damage that results from human C-reactive protein.

SEE P. 513

OCCASIONAL NOTES

The Gout of Emperor Charles V

Holy Roman Emperor Charles V was known to have had attacks of gout from early adulthood. This study provides objective confirmation of the clinical diagnosis on the basis of an examination of the mummified terminal phalanx of one of his fingers. The analysis demonstrated typical gouty tophi, eroding bone and extending into the soft tissues.

SEE P. 516