

THIS WEEK in the JOURNAL

ORIGINAL ARTICLE

On-Pump versus Off-Pump CABG

This comparative-effectiveness trial showed that clinical outcomes at 1 year were better with on-pump than with off-pump coronary-artery bypass grafting (CABG), and there was also better graft patency. There were no significant differences in neuropsychological outcomes. SEE P. 1827; EDITORIAL, P. 1897; CME, P. 1916

ORIGINAL ARTICLE

Vaccination against HPV-16 Oncoproteins for Vulvar Intraepithelial Neoplasia

In this single-group study involving women with grade 3 vulvar intraepithelial neoplasia associated with human papillomavirus type 16 (HPV-16), vaccination against HPV-16 infection with a peptide vaccine was related to a clinical response in 15 of 19 patients (79%) at 1 year. This clinical response was associated with induction of HPV-16-specific T cells.

SEE P. 1838; EDITORIAL, P. 1899; CME, P. 1916

ORIGINAL ARTICLE

A Peptide-Based Erythropoietin-Receptor Agonist for Pure Red-Cell Aplasia

This trial enlisted 14 patients with pure red-cell aplasia and antierythropoietin antibodies that were induced by treatment with conventional erythropoiesis-stimulating agents. The patients were treated with a peptide-based erythropoietin-receptor agonist that simulates the action of erythropoietin. Of the 14 subjects, 13 achieved a hemoglobin concentration above 11 g per deciliter and over the 28-month course of the study lost the need for regular transfusions.

SEE P. 1848; EDITORIAL, P. 1901

BRIEF REPORT

Testosterone and Spermatogenesis

The presence of a partially inactivating mutation in *LHB*, the gene encoding the beta subunit of luteinizing hormone, in a man with normal spermatogenesis suggests that high levels of intratesticular testosterone may not be necessary for the development of sperm.

SEE P. 1856

CLINICAL THERAPEUTICS

Phosphodiesterase Type 5 Inhibitors for Pulmonary Arterial Hypertension

A 46-year-old woman presents with exertional dyspnea and syncope and receives a diagnosis of idiopathic pul-

monary arterial hypertension. Treatment with sildenafil is recommended. Sildenafil and tadalafil are phosphodiesterase type 5 inhibitors that ameliorate pulmonary arterial hypertension by increasing levels of cyclic guanosine monophosphate in the smooth-muscle cells of the pulmonary artery.

SEE P. 1864; CME, P. 1915

MECHANISMS OF DISEASE

Myelodysplastic Syndromes

This review gives an account of the clinical and hematologic features of the myelodysplastic syndromes. It supplies the latest classification of these disorders, discusses the cytogenetic and molecular genetic changes that occur, and analyzes how some of these conditions convert to acute myeloid leukemia.

SEE P. 1872

CLINICAL PROBLEM-SOLVING

A Bloody Mystery

A 62-year-old woman presented to the urgent care clinic with gingival bleeding after periodontal scaling of her lower-right second molar 5 hours earlier. Bleeding had persisted despite the application of pressure and ice. The patient recalled a similar episode approximately 6 months earlier, also after a periodontal procedure.

SEE P. 1887

CLINICAL IMPLICATIONS OF BASIC RESEARCH

Figuring Out Ferroportin

A recent description of an alternative messenger RNA transcript of the iron-export protein ferroportin opens the door to understanding how duodenal cells maintain dietary-iron absorption when the body is iron deficient and how mean corpuscular volume is regulated in the contexts of iron deficiency and inflammatory disorders.

SEE P. 1904

VIDEOS IN CLINICAL MEDICINE

Ankle-Brachial Index for Assessment of Peripheral Arterial Disease



Although other methods exist to assess the peripheral vasculature, measurement of the ankle-brachial index remains a simple, reliable method for diagnosing peripheral arterial disease. This video presents

the indications for use of the ankle-brachial index and demonstrates how it is measured.

SEE P. e40