

THIS WEEK in the JOURNAL

ORIGINAL ARTICLE

Condom Use and the Risk of Genital HPV Infection in Young Women

In this prospective study of female university students, investigators from Seattle demonstrate that the consistent use of condoms by male partners from the initiation of female sexual activity decreases the incidence of female human papillomavirus (HPV) infection. The incidence of genital HPV decreased from 89.3 per 100 patient-years (for 5 percent condom use) to 37.8 per 100 patient-years (for 100 percent condom use).

SEE P. 2645; PERSPECTIVE, P. 2642; CME, P. 2742

ORIGINAL ARTICLE

Cyclophosphamide in Scleroderma Lung Disease

Interstitial lung disease is a common complication of systemic sclerosis, but there is no widely accepted treatment. In this randomized, placebo-controlled trial, treatment with cyclophosphamide for one year was associated with a small but significant improvement in lung function and symptom outcomes. The long-term adverse effects of this treatment are unknown.

SEE P. 2655; EDITORIAL, P. 2707; CME, P. 2743

ORIGINAL ARTICLE

Stimulatory Autoantibodies to the PDGF Receptor in Systemic Sclerosis

The pathophysiology of systemic sclerosis (scleroderma), an autoimmune disease characterized by injury of endothelial cells, and tissue fibrosis, is undefined. Patients with scleroderma were shown to have agonistic autoantibodies against the platelet-derived growth factor (PDGF) receptor. These autoantibodies have activity on fibroblasts and they may play a causal role in the pathogenesis of the disease.

SEE P. 2667; EDITORIAL, P. 2709

ORIGINAL ARTICLE

Connexin 40 Mutations and Atrial Fibrillation

In 4 of 15 patients with idiopathic atrial fibrillation, four novel, heterozygous mutations in *GJA5* — the gene for the gap-junction protein connexin 40 — were identified. These supplement the list of mutations that cause atrial fibrillation and will improve our understanding of the molecular basis of atrial fibrillation.

SEE P. 2677; EDITORIAL, P. 2712

CLINICAL THERAPEUTICS

Omalizumab for Asthma

A 16-year-old boy with a history of severe persistent asthma despite treatment with inhaled corticosteroids presents for evaluation. Treatment with omalizumab, a monoclonal anti-IgE antibody, is recommended. This agent has been found to reduce the frequency of exacerbations of asthma in clinical trials. It is not known how the efficacy of omalizumab compares with that of other available therapies. The drug is more expensive than other agents.

SEE P. 2689; CME, P. 2741

CASE RECORDS OF THE MASSACHUSETTS GENERAL HOSPITAL

A Boy with Rapid Growth of Subcutaneous Nodules

A 22-month-old boy was seen in the pediatric rheumatology clinic because of subcutaneous nodules on the legs, right hand, and neck that had been increasing in size and number during the preceding six weeks. The child was otherwise well. The lesions were firm, nontender, slightly mobile, and nonpigmented. A diagnostic procedure was performed.

SEE P. 2697

LEGAL ISSUES IN MEDICINE

Bioterror and “Bioart” — A Plague o’ Both Your Houses

In response to the September 11, 2001, attacks and heightened concern about bioterrorism, the U.S. government increased research funding for developing countermeasures to bioterrorism and passed new biosafety legislation. In this article, Annas discusses the legal and ethical issues raised by two cases involving scientists accused of violating biosafety laws.

SEE P. 2715

CLINICAL IMPLICATIONS OF BASIC RESEARCH

A New Player in Hypertension?

Mice deficient in *Emilin1*, an extracellular growth factor expressed in blood vessels, have hypertension. This observation, together with the finding that *Emilin1* regulates the availability of transforming growth factor β (TGF- β), contributes to a growing body of evidence implicating TGF- β in hypertension.

SEE P. 2721