

THIS WEEK in the JOURNAL

ORIGINAL ARTICLE

Delayed Time to Defibrillation after In-Hospital Cardiac Arrest

The relationship between time to first defibrillation attempt and success of resuscitation was investigated in a cohort of 6789 patients in the National Registry of Cardiopulmonary Resuscitation. Patients for whom the time to defibrillation was more than 2 minutes had a significantly reduced likelihood of return of spontaneous circulation, survival to 24 hours, and survival to hospital discharge, as well as poorer neurologic and functional outcomes.

SEE P. 9; EDITORIAL, P. 77; CME, P. 103

ORIGINAL ARTICLE

Functional Outcome after Language Mapping for Glioma Resection

In this series of 250 patients with gliomas, tumor resection was guided by cortical stimulation and language testing to avoid resection of language areas. In contrast to traditional practice, testing outside the field of exposure was not required when no positive language sites were identified within the field. This “negative language mapping” strategy achieved acceptable outcomes; only 4 of 243 surviving patients had language deficits at 6 months.

SEE P. 18; PERSPECTIVE, P. 6

ORIGINAL ARTICLE

PAF, PAF Acetylhydrolase, and Severe Anaphylaxis

Platelet-activating factor (PAF) is an anaphylactic mediator that is degraded in the blood by the enzyme PAF acetylhydrolase. In this study, patients with anaphylactic reactions were found to have higher levels of circulating PAF and lower levels of PAF acetylhydrolase activity than were patients without anaphylaxis. PAF-acetylhydrolase levels were low in patients who died as a result of an anaphylactic reaction to peanuts.

SEE P. 28; EDITORIAL, P. 79

ORIGINAL ARTICLE

Capecitabine and Oxaliplatin for Advanced Esophagogastric Cancer

The triple chemotherapy with epirubicin plus cisplatin and fluorouracil is standard for advanced esophagogastric cancer. The fluorouracil must be infused through an ambulatory infusion pump, which impairs the quality of

life; cisplatin, which is nephrotoxic, requires intravenous hydration. In this randomized trial, capecitabine, an oral fluoropyrimidine, plus oxaliplatin, a platinum compound that does not require hydration, was as effective in prolonging overall survival as was fluorouracil plus cisplatin.

SEE P. 36

CLINICAL THERAPEUTICS

Metformin for the Treatment of the Polycystic Ovary Syndrome

A 23-year-old woman with the polycystic ovary syndrome presents for evaluation and possible treatment. She has a family history of diabetes, is obese, and has impaired glucose tolerance. Metformin therapy is recommended. Metformin increases insulin sensitivity and may reduce the risk of diabetes. In the polycystic ovary syndrome, long-term metformin treatment may increase ovulation, improve menstrual cyclicity, and reduce serum androgen levels.

SEE P. 47; CME, P. 101

MECHANISMS OF DISEASE

Major Depressive Disorder

This review of major depressive disorder is a comprehensive account of the genetic, biochemical, and neurophysiological changes that have been implicated in the disorder. No single mechanism can account for all the clinical variations in this condition. The monoamine oxidase theory can explain many of the actions of antidepressants, but genetic factors, stress, and psychosocial factors also play a part in depression.

SEE P. 55

CLINICAL PROBLEM-SOLVING

Failure to Respond

A 52-year-old man presented to his primary care physician with dyspnea and cough. For the past 15 years, he had had recurrent episodes of cough that were relieved only by intermittent courses of oral corticosteroids. In the past 3 weeks, his cough had increased in frequency, and severe dyspnea had developed. This time, 2 weeks of prednisone had not provided relief. He had occasional chills but no fever.

SEE P. 70; CME, P. 102

CLINICAL IMPLICATIONS OF BASIC RESEARCH

B-Cell Identity

Ablation of the transcription factor Pax-5 results in the dedifferentiation of B cells in mice. Some of these dedifferentiated cells redifferentiate into functional T cells.

SEE P. 82