Coffee Consumption and Risk of Type 2 Diabetes Mellitus

Coffee intake may be associated with reduced risk of type 2 diabetes mellitus because of minerals, phytochemicals, and antioxidants in coffee, but the role of caffeine is unclear. Pereira et al examined the association between total, caffeinated, and decaffeinated coffee intake and risk of incident type 2 diabetes mellitus. This prospective analysis included 28,812 postmenopausal women free of diabetes and cardiovascular disease in the general community. Compared with women who reported 0 cups of coffee per day, women who consumed 6 or more cups per day had a 22% lower risk of diabetes. This association appeared to be largely explained by decaffeinated coffee rather than regular coffee. Intakes of caffeine from all courses was not associated with risk of diabetes. The authors conclude that coffee intake, especially decaffeinated, was inversely associated with risk of type 2 diabetes mellitus in this cohort of postmenopausal women. See page 1311

A Community-wide Pertussis Outbreak: An Argument for Universal Booster Vaccination

Pertussis incidence has increased in the United States since 1980, punctuated by outbreaks involving adults and adolescents. Schafer et al investigated a community-wide outbreak of pertussis and found a number of barriers to control of transmission through traditional “identify and prophylax” approaches, including a predominance of adolescent and adult cases, clustering in hard-to-reach populations, and absence of modifiable risk factors among adults. These findings suggest that universal booster vaccination of adolescents and adults might be the only effective means to prevent future outbreaks. See page 1317

Mixed Comparison of Stroke Prevention Treatments in Individuals With Nonrheumatic Atrial Fibrillation

Establishing the benefits and harms of different stroke prevention treatment strategies for individuals with nonrheumatic atrial fibrillation is complicated by the array of trials that compare them. To combine direct within-trial, between-treatment comparisons with indirect trial evidence while maintaining randomization, mixed treatment comparison methodology has been applied. The analysis combined data from 19 clinical trials that included 17,833 patients randomized to 9 treatment strategies, including placebo. Overall, a lower rate of ischemic stroke and a higher rate of major bleeding episodes were found to be associated with oral anticoagulant use compared with aspirin, and both anticoagulants and aspirin were found to be associated with a reduction in the rate of stroke compared with placebo. See page 1269

Potentially Modifiable Resident Characteristics That Are Associated With Physical or Verbal Aggression Among Nursing Home Residents With Dementia

Each week more than 6% of elderly nursing home residents are physically aggressive on at least 1 occasion. Leonard et al studied 103,344 elderly nursing home residents who were cognitively impaired in 5 large geographically diverse states and found that physically aggressive behavior was strongly associated with the aggressor’s depressive symptoms, delusions, hallucinations, and constipation. Verbal aggression had similar associations with the same factors, except for constipation. These factors may be targets for future interventions to prevent aggression among long-term care residents. See page 1295

Reemergence of Gram-negative Health Care–Associated Bloodstream Infections

Primary health care–associated bloodstream infections (PHABSI) affect as many as 350,000 patients in the United States annually. Over the past 20 to 25 years, gram-positive organisms have been the predominant cause of PHABSI. At the authors’ institution, the proportion of PHABSI due to gram-negative organisms increased from 15.9% to 24.1% from 1999 through 2003 (P for trend, <.001). This trend was not significantly different across various units of the hospital, and no specific gram-negative species (resistant or susceptible) contributed disproportionately to the increase. Finally, the trends were not associated with use of specific types of central venous catheters. The increase in gram-negative organisms was accompanied by a decline in the proportion of PHABSI from coagulase-negative staphylococci (from 33.5% in 1999 to 29.9% in 2003; P = .007) and Staphylococcus aureus (from 18.8% in 1999 to 11.8% in 2003; P = .004). The proportion of PHABSI from Candida species nearly doubled from 5.8% in 1999 to 11.3% in 2003 (P = .002). These findings have important implications for the management of bloodstream infections in the health care setting. See page 1289