Masala

Even low caffeine intake by pregnant women can cause foetal growth restriction. Consumption of caffeine was assessed in a study in over 2500 healthy pregnant women throughout pregnancy. After appropriate adjustments, women who consumed an equivalent of 2 cups of brewed coffee per day were at increased risk of delivering a foetus with birth weight less than the 10th percentile compared with women who consumed less than 1 cup per day. Further, the mean birth weight of the infant was higher in women who reduced their caffeine intake relative to those who maintained their pre-pregnancy intake (BMJ 2008;337:a2332).

A note of caution for cardiac patients with pacemakers or defibrillators with regard to the use of MP3 players (iPod) and their electromagnetic interference (EMI). According to a study there was no significant EMI from MP3 players themselves but device interference did occur with headphones in almost one-third of the study patients. However, EMI was not observed when the headphones were kept more than 3 cm from the surface of the skin. As it turns out, most headphones contain a magnetic substance, neodymium (Circulation 2008;118:S_596). The author commented that patients should not worry about using headphones in or on their ears, as intended but ‘they should avoid draping the headphones over their chest or placing them in a front pocket of their shirt and they should be wary of a loved one resting his or her head on their chest while wearing headphones’.

Universal HIV screening—just do it! The recent guidelines issued by the American College of Physicians and the HIV Medicine Association state that physicians should routinely screen all patients older than 13 years of age for HIV (Ann Intern Med 2008 Nov 30, Epub ahead of print). The reasons for this recommendation of universal screening are: early identification and treatment increases survival and probably decreases transmission; the conventional practice of basing HIV screening decisions on patients’ risk has failed to identify substantial transmission early in their infection; and there is strong evidence that screening is cost-effective even when HIV prevalence is low.

CT coronary angiography is not yet good enough for symptomatic patients with suspected coronary artery disease (CAD). In a multicentric study, patients underwent calcium scoring and 64-row multidetector CT angiography before conventional coronary angiography for the evaluation of suspected CAD. Stenoses of 50% or more were considered obstructive. The performance of CT angiography was good: sensitivity 85%; specificity 90%; positive predictive value 91%; negative predictive value 83% (N Engl J Med 2008;359:2324–36). While CT angiography accurately identified the presence and severity of obstructive coronary artery disease, the negative and positive predictive values suggest that CT angiography cannot replace conventional coronary angiography at present.

Eating habits and obesity. In a large cross-sectional study it was found that adults who ate rapidly or until they were full were more likely to be overweight, regardless of how many calories they consumed. More than 3000 Japanese subjects participated in this study and after adjustment for confounders including daily caloric intake, those who reported eating until they were full had roughly twice the odds of being overweight compared with those who stopped eating sooner. Those who ate quickly were also about twice as likely to be overweight as those who ate more slowly. Being overweight was especially common among adults with both eating behaviours (BMJ 2008;337:a2002).

Aggressive glucose control and cardiovascular events—what is the impact? A recent study randomized nearly 1800 military veterans with uncontrolled glycaemic status to either intensive or standard glucose control. Although the median HbA1c level was 1.5 percentage points lower in the intensive treatment group than in the standard group by 6 months, both groups showed similar rates of major cardiovascular events after a median follow up of over 5 years (N Engl J Med 2008 Dec 17, Epub ahead of print). An author observed that this was the third study failing to show a drop in cardiovascular risk after intensive glucose control and added that ‘critics might wonder if treatment earlier in the course of diabetes or longer follow up would have altered this study’s findings’.

Sleep more and keep the coronaries healthy. This one surely is a benefit propelled by ‘inactivity’ or a risk factor reduction that does not require effort. A recent publication examined the correlation between the duration of sleep and incident coronary artery calcifications in young adults over a 5-year period (JAMA 2008;300:2859–66). After adjustments for confounders the odds of calcification were 34% lower with each additional hour of sleep per night—an effect equivalent to that of a 16.5 mmHg drop in systolic blood pressure. Sleep well and sleep long.

C-reactive protein (CRP)—the rich man’s ESR! Many studies have found that elevated levels of CRP are associated with increased risks of ischaemic heart disease and ischaemic cerebrovascular disease. But is the association causal? A large study suggests that the answer is no. More than 50 000 adults who had either ischaemic heart disease or ischaemic cerebrovascular disease or who served as healthy controls were studied in 4 groups. It was found that CRP levels >3 mg/L were associated with increased cardiovascular risk, relative to levels <1 mg/L. Simultaneously, it was also found that CRP polymorphisms, as assessed through genotyping, were associated with increased plasma CRP but these polymorphisms themselves did not confer increased risk for either ischaemic heart disease or ischaemic cerebrovascular disease. The authors concluded that perhaps CRP does not cause atherosclerosis but is simply a marker of disease, and drugs targeting CRP are unlikely to provide any preventive benefit (N Engl J Med 2008;359:1897–908).

In the same issue of the New England Journal of Medicine as the above study, CRP levels were used to guide therapy with statins wherein rosuvastatin reduced cardiovascular events among adults who have elevated high-sensitivity CRP without high cholesterol (N Engl J Med 2008;359:2195–207). In this study, almost 18 000 subjects without hyperlipidaemia (low density lipoprotein [LDL] <130 mg/dl) but with elevated CRP (≥2 mg/L) were randomized to rosuvastatin or placebo. Rosuvastatin reduced LDL cholesterol levels by 50% and high-sensitivity CRP levels by 37% and was associated with a significant reduction in cardiovascular events at 2 years (from 1.8% to 0.9%).

GOPESH K. MODI