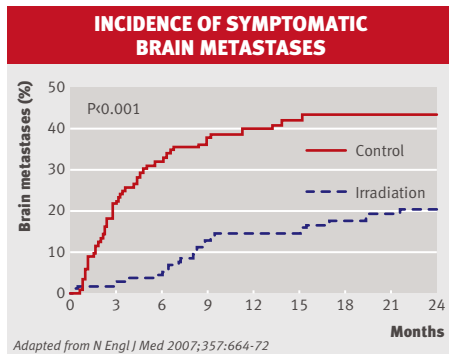


# SHORT CUTS

WHAT'S NEW IN THE OTHER GENERAL JOURNALS

Kristina Fister, associate editor, *BMJ* [kfister@bmj.com](mailto:kfister@bmj.com)

## Prophylactic cranial radiotherapy improves survival in extensive small cell lung cancer



Brain metastases are common in small cell lung cancer, and guidelines for treating this disease generally recommend prophylactic cranial radiotherapy for patients who have complete remission after chemotherapy. However, most people with extensive disease are unlikely to have a complete response to chemotherapy yet are at high risk of brain metastases, with poor prognosis. Prophylactic cranial irradiation should be part of standard care for these patients too, the authors of a randomised trial have concluded.

The study group recruited 286 people with extensive disease who had shown some response to chemotherapy. Half of this group received cranial irradiation, and 24 (17%) of these 143 patients developed symptomatic brain metastases, compared with 59 (41%) of the 143 controls (hazard ratio 0.27, 95% CI 0.16 to 0.44).

The risk of extracranial progression at one year did not differ significantly between the groups, but the irradiation group survived longer without disease progression (0.76, 0.59 to 0.96) and lived for longer overall after the start of the trial (0.68, 0.52 to 0.88). Survival at one year was 27.1% (19.4% to 35.5%) in the irradiation group and 13.3% (8.1% to 19.9%) in controls.

*N Engl J Med* 2007;357:664-72

## HPV vaccines don't help treat existing infections

Women already infected with human papilloma virus (HPV) don't benefit from vaccination with the bivalent HPV-16/18 L1

virus-like particle vaccine. In a phase III trial, more than 2000 women with confirmed HPV DNA in cervical specimens, aged 18-25 years, were randomised to receive three doses of the vaccine or a control vaccine for hepatitis A.

Vaccination with HPV-16/18 vaccine didn't improve clearance of type 16 or type 18 HPV at six or 12 months of follow-up. At six months, women randomised to the intervention had an HPV-16/18 virus clearance rate of 33.4% (82/248), compared with 31.6% (95/298) in the control group, giving a vaccine efficacy for viral clearance of 2.5% (95% CI -9.8% to 13.5%). Corresponding rates at 12 months were 48.8% (86/177) and 49.8% (110/220), and vaccine efficacy for viral clearance was -2.0% (-24.3% to 16.3%).

A linked editorial (p 805) says these results are consistent with those of a recent trial of the quadrivalent HPV-6/11/16/18 vaccine, which didn't slow down progression to cervical intraepithelial neoplasia in women infected with HPV at baseline. These new results confirm that neither vaccine works therapeutically. Policies should still aim to vaccinate girls before they first have sex. The cost effectiveness of vaccinating older women should be assessed in the future.

*JAMA* 2007;298:743-53

## Diet may matter for prognosis of colon cancer

A diet rich in red and processed meats, fat, sweets, and refined grains (also called the Western dietary pattern) seems to increase the risk of recurrence of disease and death in people with colon cancer. A prospective observational study assessed dietary habits in more than 1000 people with stage III colon cancer who participated in a randomised trial of chemotherapy regimens after complete surgical resection of the primary tumour.

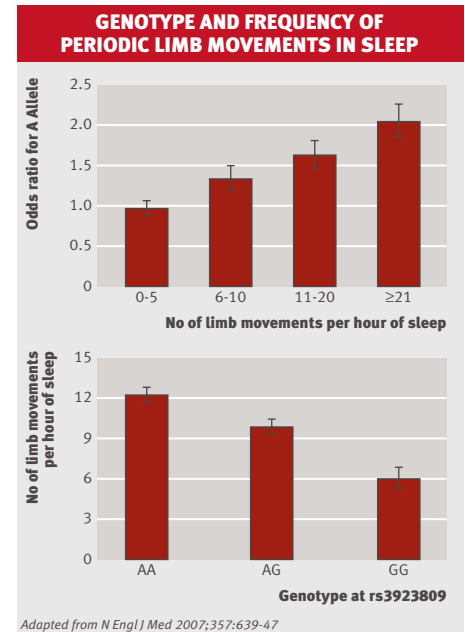
People in the highest fifth of Western dietary pattern were more than three times as likely to have a recurrence or die during a median follow-up of 5.3 years than people in the lowest fifth. The results remained significant after adjusting for sex, age, nodal stage, body mass index, physical activity, baseline performance status, and trial treatment group. However, the prudent dietary pattern wasn't protective: a diet with higher intake of fish

and poultry, fruits and vegetables, legumes, and whole grains wasn't associated with a change in any of the outcomes.

Although many people with colon cancer seek information about diet and try complementary nutritional treatments, this seems to be the first study to date to assess the effects of diet on the progress of colon cancer. Because the study was observational, no firm conclusions on causality can be drawn.

*JAMA* 2007;298:754-64

## Periodic limb movements get their gene



A genome wide association study with two replication studies in populations from Iceland and the United States found a genetic sequence variant which is associated with periodic limb movements—a disorder in which recurrent dorsiflexion of the foot and lower leg during sleep occurs. The disorder often accompanies restless legs syndrome, a condition characterised by an intensely uncomfortable urge to move the legs, which is a major disruptor of sleep.

A sequence variant in the intron of BTBD9 on chromosome 6p21.2 was found more often in people with restless legs syndrome and their relatives than in controls without the disorder. However, the association was

strongest in people with periodic limb movements who didn't have restless legs syndrome, while no association was found in people with restless legs syndrome and no periodic limb movements.

A linked editorial (p 703) suggests this may identify periodic limb movements as a heritable biomarker, or endophenotype, for restless legs syndrome. The concept is increasingly used to help in understanding conditions with complex heritability, by dissecting them into simpler phenomena. The simpler pathophysiological and genetic characteristics of endophenotypes should help to understand the aetiology of the wider disorders of which they are markers and help find effective treatments.

*N Engl J Med* 2007;357:639-47

## Diabetes worsens prognosis in acute coronary syndrome

Diabetes is regarded as a risk equivalent of coronary artery disease for myocardial infarction and death from cardiovascular disease, but its effects on outcomes in acute coronary syndrome haven't been studied since modern treatments became available. A subgroup analysis of more than 60 000 people involved in 11 trials testing treatments for acute coronary syndrome shows that diabetes continues to worsen survival outcomes for these patients.

Of the sample, 10 613 people had diabetes, including those who controlled it by dietary measures. Mortality at 30 days after ST segment elevation myocardial infarction (STEMI) was higher for these people after adjusting for baseline characteristics, features of acute coronary syndrome, and management (adjusted odds ratio 1.40, 95% CI 1.24 to 1.57). The same was true for unstable angina/non-STEMI events (1.78, 1.24 to 2.56).

At one year, diabetes still increased the risk of death after STEMI (adjusted hazard ratio

1.22, 1.08 to 1.38) and after unstable angina/non-STEMI (1.65, 1.30 to 2.10). One year after acute coronary syndrome, people with diabetes who presented with unstable angina/non-STEMI had a risk of dying similar to that of people without diabetes who presented with STEMI (7.2% v 8.1%).

*JAMA* 2007;298:765-75

## Drug induced abortions don't complicate future pregnancies

Medical abortions, most often induced by mifepristone followed by misoprostol, are on the rise. Surgical termination in the first trimester of pregnancy is known not to complicate subsequent pregnancies, but long term outcomes haven't been studied for medical abortions. A national registry linkage study from Denmark included nearly 12 000 women who terminated their pregnancies between 1999 and 2004, and had at least one subsequent pregnancy.

The 2710 women who had medical termination in the first trimester had no increased risk of ectopic pregnancies, spontaneous abortions, preterm births, or low birth rates in the first subsequent pregnancy compared with 9104 women who had surgical termination in the first trimester. The results were adjusted for mothers' ages, time between pregnancies, gestational age at abortion, parity, cohabitation status, and urban or non-urban residence.

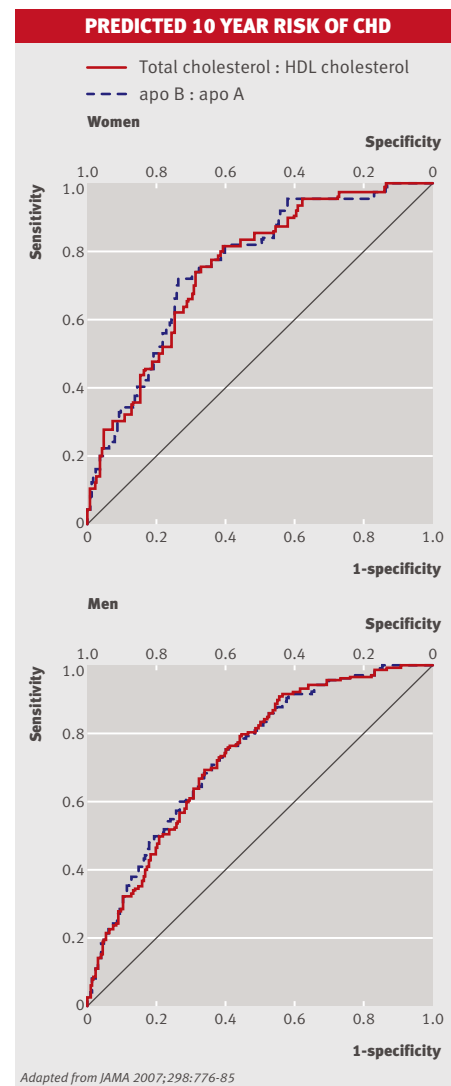
The conclusions on the safety of medical abortions for subsequent pregnancies hinge on the premise that surgical abortions are also safe for future pregnancies. Such a comparison was deemed more appropriate by the researchers than the comparison with mothers who had never had an abortion, however, because of the lack of data on possible confounders such as smoking status or history of sexually transmitted infections.

*N Engl J Med* 2007;357:648-53

## Apolipoprotein ratio no better than traditional lipids for predicting coronary heart disease

Traditional lipid measures are just as good at predicting the development of coronary heart disease as concentrations of apolipoproteins (apo), and testing for the newer measures is not needed, according to a prospective cohort study of more than 3300 American adults.

The role of low density lipoprotein cholesterol (LDL-C) in the pathogenesis of athero-



sclerotic disease is well established, as is the use of LDL-C, high density lipoprotein cholesterol (HDL-C), and total cholesterol in assessing the risk of coronary heart disease. Reports had suggested that apo B and apo A-I measurements might be better predictors of risk, because apo B concentrations may better reflect the plasma concentration of atherogenic particles, and the study aimed to test this idea.

After a median follow-up of 15 years, 291 participants had developed coronary heart disease. Multivariate modelling adjusting for non-lipid risk factors showed the ratio of apo B to apo A-I predicted coronary heart disease (hazard ratio per SD increment 1.39, 95% CI 1.23 to 1.58 in men and 1.40, 1.16 to 1.67 in women), but no better than the ratio of total cholesterol to HDL-C (hazard ratio 1.39, 1.22 to 1.58 in men and 1.39, 1.17 to 1.66 in women) or the ratio of LDL-C to HDL-C (1.35, 1.18 to 1.54 in men and 1.36, 1.14 to 1.63 in women).

*JAMA* 2007;298:776-85

