

# CARPHOLOGY by Rajendra



Practical Neurology 2006; 6: 202

A cost assessment study finds that using BCG to prevent tuberculous meningitis and miliary tuberculosis in children is not just effective but also cost effective. The authors find that about 100 million BCG vaccinations given to infants in 2002 should have prevented about 30,000 cases of tuberculous meningitis in children during their first five years of life—or one case for every 3435 vaccinations. At US\$2–3 per dose, BCG vaccination costs about US\$200 per year of healthy life gained, which is considered to be good value for money.

*Lancet* 2006;**367**:1173–80.

Five patients with minimal hepatic encephalopathy due to cirrhosis were assessed with a neuropsychometric battery and by PK11195 positron emission tomography. Increased cerebral binding of the ligand PK11195 was detected in glial cells in the fronto-limbic-basal ganglia circuits, reflecting increased expression of "peripheral benzodiazepine binding sites." Patients with the highest binding were cognitively the most impaired. The authors say these findings support the hypothesis, generated from animal studies, that hepatic encephalopathy is associated with glial activation.

*Gut* 2006;**55**:547–53.

Controversy is on the way about the part played by magnetic resonance imaging in the diagnosis of multiple sclerosis. The results of a systematic review of 29 studies suggest that MRI is a relatively poor test for both ruling in and ruling out multiple sclerosis in patients with suspected disease. As with most systematic reviews, the included studies were of varying quality; the 15 better designed studies produced higher estimates of specificity and lower estimates of sensitivity. Early diagnosis of any disease often means more false positives, early treatment for some, and incorrect treatment for others. Intentionally delaying diagnosis means fewer false positives but delayed treatment.

*BMJ* 2006;**332**:875–84.

A cluster randomised controlled trial carried out in 12 nursing homes on people with severe dementia finds that an intervention package using person centred care for behavioural symptoms reduces the

use of neuroleptics by 19% and manages the symptoms safely. The reduction in neuroleptic use was sustained for 12 months.

*BMJ* 2006;**332**:756–61.

A population based, cross sectional survey of patients with confirmed stroke or transient ischaemic attack finds that the characteristics of patients with cerebrovascular disease in primary care were different from those of the participants in the PROGRESS trial. Patients were 12 years older and twice as likely to be women. The median time that had elapsed since their cerebrovascular event was two and a half years, compared with eight months in the trial. The authors say that these and other differences mean that recommendations about the control of blood pressure based on PROGRESS may not be appropriate for primary care.

*BMJ* 2006;**332**:635–7.

Does inhalation of mercury vapour, released by amalgam dental restorations, cause neuropsychological ill effects? This longstanding question now has a more robust answer from two randomised trials in over 500 children with a follow up of five years in one trial and of seven years in the other. The trials compared the health of children whose caries were restored using either dental amalgam or mercury-free composite materials, and found no significant differences between the two groups. The outcomes tested were—change in IQ score, memory, and visuomotor ability. One of the trials also tested nerve conduction velocities.

*JAMA* 2006;**295**:1775–83 and *JAMA* 2006;**295**:1784–92.

Do women's platelets respond differently to low dose aspirin? To answer this question, researchers examined the effects of aspirin at 81 mg/d for 14 days on platelet reactivity in a large population of men and women with known excess risk for cardiovascular disease. They found that women experienced the same or greater decrease in platelet reactivity, retaining modestly more platelet reactivity than men. However, aggregation in the direct COX-1 pathway was totally suppressed. The major limitation of this study, the authors acknowledge, is the lack of prospective data linking measures of platelet reactivity to aspirin to subsequent vascular events, and the extent to which ex vivo tests represent platelet activity in vivo.

*JAMA* 2006;**295**:1420–7.

Making a diagnosis of fetal anticonvulsant syndrome on the basis of facial appearance alone is difficult, but the features of fetal valproate syndrome are the easiest to recognise, say the authors of a retrospective study of 375 children born to 219 mothers with epilepsy. Dysmorphic features were scored on a blind basis from photographs by a panel of dysmorphologists. Features noted in children exposed to valproate were medial deficiency of eyebrows, infraorbital grooves, broad nasal bridge, anteverted nose, abnormal philtrum, and a thin upper lip (see fig). Forty seven per cent of exposed children were correctly identified as having been exposed to antiepileptic drugs in utero.

*Arch Dis Child Fetal Neonatal Ed* 2006;**91**:F90–F95.a



The facial appearance in fetal valproate syndrome. Reproduced with permission from the BMJ Publishing Group.