

# CARPHOLOGY by Rajendra



Pract Neurol 2007; 7: 350

## Multiple sclerosis in children

What is the natural history of multiple sclerosis which begins in childhood? Scientists used data from 13 adult neurology departments affiliated to the European Database for Multiple Sclerosis network to identify nearly 400 patients whose disease began at 16 years of age or younger. They compared these data with those obtained from 1775 patients whose disease began after the age of 16 years. They found that those with childhood onset disease were more likely to be female than male (2.8 vs 1.8), and to have an exacerbating-remitting initial course (98% vs 84%). They also took about 10 years longer to reach secondary progression and irreversible disability, but they reached these landmarks about 10 years younger. Thus patients with childhood-onset multiple sclerosis take longer to reach states of irreversible disability but do so at a younger age than patients with adult-onset disease.

*N Engl J Med* 2007;**356**:2603–13.

## Gene therapy for Parkinson's disease

Gene therapy to the subthalamic nucleus is safe and well tolerated by patients with advanced Parkinson's disease say the authors of an open label, phase I trial conducted in New York. The scientists transferred glutamic acid decarboxylase (GAD) gene using adeno-associated virus (AAV) as a vector into the subthalamic nucleus of 11 men and 1 woman with Parkinson's disease (mean age 58 years). The genes were delivered to one side only using a catheter. Four patients received low doses, four medium doses, and four high doses of AAV-GAD. No adverse events related to gene therapy occurred. Significant improvements in motor scores, predominantly contralateral to surgery, were seen three months after therapy and persisted up to 12 months.

*Lancet* 2007;**369**:2097–105.

## Surgery for sciatica

Surgery is usually considered if sciatica does not resolve in about six weeks. But should this be done immediately or can watchful waiting be an option? Doctors in the Netherlands randomly assigned 283 patients who had had severe sciatica for 6–12 weeks to early surgery or to prolonged conservative treatment with surgery if needed. The disability was similar for patients who were operated on early compared to those assigned to conservative treatment with surgery if needed. However, pain relief and perceived recovery were faster for those who were operated on early, although in both groups the probability of perceived recovery after one year was 95%.

*N Engl J Med* 2007;**356**:2245–56.

## Diabetic neuropathy

In diabetic neuropathy, tricyclic antidepressants and traditional antiepileptic drugs are better for short-term relief of pain than the newer antiepileptics. These are the findings of a systematic review that included 25 reports. The odds ratios for 50% pain relief were 5.33 (95% CI 1.77 to 16.02) for traditional antiepileptics, 3.25 (2.27 to 4.66) for newer generation antiepileptics, and 22.24 (5.83 to 84.75) for tricyclics. The authors add that there is still no information about the long-term effects of these drugs.

*BMJ* 2007;**335**:87–90.

## Preventing venous thromboembolism

Lowering homocysteine concentrations with folic acid and B vitamins did not reduce the risk of symptomatic venous thromboembolism (deep venous thrombosis and pulmonary embolism) in patients with cardiovascular disease or diabetes mellitus and at least one other risk factor for vascular disease. This is the finding of a secondary analysis of data from the randomised, placebo-controlled Heart

Outcomes Prevention Evaluation 2 (HOPE-2) trial. This multicentre international trial involved over 5500 patients aged 55 years or more. It serves as a reminder: beware of surrogate markers.

*Ann Intern Med* 2007;**146**:761–7.

## Cerebral palsy and pain

Most children aged 8–12 years with cerebral palsy will have similar self-reported quality of life compared to normal children. This is the conclusion reached by researchers who studied 500 children with cerebral palsy (who could self-report) and compared them with normal children using a 10 domain instrument called KIDSCREEN. Multivariable regression was used to relate quality of life to impairments, pain and sociodemographic characteristics. Impairments were not significantly associated with six KIDSCREEN domains but pain was associated with reduced quality of life across all domains. Overall 3% of the variation in quality of life in these children was explained by impairments, and 7% by pain. Over half the children with cerebral palsy experienced some degree of pain.

*Lancet* 2007;**369**:2171–8.

## Cerebral palsy in premature infants

Population-based prevalence rates for cerebral palsy in extremely premature children show steady reductions since 2002, reversing trends prior to 1992–4. This good news comes from Alberta, Canada where researchers studied 2318 infants of 20–27 weeks gestational age with birth weights of 500–1249 g who were liveborn from 1974 through 2003. At age 2 years, 122 (14.2%) of 858 survivors had cerebral palsy. The prevalence varied over time and had peaked at 131 per 1000 live births in the mid-1990s. For all survivors born in the years 2001–3, prevalence for cerebral palsy was 19 per 1000 live births.

*JAMA* 2007;**297**:2733–40.