

CARPHOLOGY by Rajendra



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Making lumbar puncture more comfortable

A systematic review of diagnostic lumbar puncture techniques that may decrease the risk of adverse events comes to mostly predictable conclusions. Small-gauge, atraumatic needles decrease the risk of headache after lumbar puncture, as does reinsertion of the stylet before removing the needle—but bed rest does not. And a cerebrospinal fluid (CSF): blood glucose ratio of 0.4 or less, CSF white blood cell count of 500/ μ l or more, and CSF lactate level of 31.5 mg/dl or more accurately diagnose bacterial meningitis.

JAMA 2006;296:2012–22.

Breast feeding does not influence IQ

Breast feeding has many virtues, but it has little or no effect on intelligence in children. These are the findings of a longitudinal survey of 5475 children, the offspring of 3161 mothers in the 1979 US national longitudinal survey of youth. Although breast feeding was associated with a higher IQ in children, this effect was mostly accounted for by maternal IQ as more intelligent mothers were more likely to breast feed. The study excluded premature and low birthweight infants, for whom the effect may be different, say the authors.

BMJ, doi:10.1136/bmj.38978.699583.55 (published 4 October 2006)

Twins do not have lower academic performance than singletons

All twins ($n = 3411$) and a random sample of singletons ($n = 7796$) born in Denmark in 1986–8 were followed up by researchers who looked at their test scores in ninth grade, birth weight, gestational age at birth, parents' age, and parents' education. Twins had similar academic performance to that of

singletons. This contrasts with earlier cohorts of twins who have been found to have lower mean IQ scores than singletons. A significant, positive association between test score and birth weight was observed in twins and singletons, but the size of the effect was small. (0.06–0.12 standard deviations for every kg increase in birth weight.)

BMJ, doi:10.1136/bmj.38959.650903.7C (published 29 September 2006).

Stroke rehabilitation: restraining the good hand helps the bad hand

Wearing a restraining mitt on the less affected hand, while engaging in repetitive task practice and behavioural shaping with the hemiplegic hand, produces clinically relevant improvement in motor function that persists for at least one year. This is the finding of a prospective, single-blind, randomised, controlled trial, which was conducted in seven centres in the US on 220 patients with ischaemic stroke within the previous 3–9 months.

JAMA 2006;296:2095–104.

Sudden infant death syndrome is to do with medullary serotonergic neurons

More research highlights the part played by medullary serotonergic (5-HT) neurons in causing the sudden infant death syndrome (SIDS). Researchers investigated cellular defects associated with altered 5-HT receptor binding in autopsy samples obtained from 31 cases with SIDS and 10 controls. They found that medullary 5-HT pathology is more extensive than previously shown—potentially including abnormal neuron firing, synthesis, release, and clearance. Interestingly, male babies with SIDS had significantly lower 5-HT1A binding density in the raphe obscurus

compared with female cases, or with male and female controls combined. According to the authors, this preliminary evidence may help explain the increased vulnerability of boys to SIDS.

JAMA 2006;296:2124–32.

Aggression following head injury is helped by β blockers

A recent Cochrane systematic review of randomised controlled trials evaluates the effects of drugs in the management of agitation and aggression following acquired brain injury. Though several drugs have been tried, only four (β blockers—propranolol and pindolol, methylphenidate, and amantadine) could ultimately be evaluated after the exclusion criteria were applied. The best evidence of effectiveness comes from four trials, which evaluated the β blockers. The reviewers add that they could not find firm evidence of effectiveness of carbamazepine or valproate.

Cochrane Database Syst Rev 2006;(4):CD003299.

Stroke is associated with periodontitis

Data from NHANES III, a large population based, cross sectional survey of the US, were used to investigate the relation of periodontal disease to the self-reported history of stroke in older people. Because a large number of individuals in the study were edentulous (1563 of the 5123) the researchers used a new measure called the periodontal health status index to assess periodontal disease. After adjustment for age and tobacco use, completely edentulous elderly adults and partially edentulous elderly adults with appreciable loss of bone and gingival tissue were more likely to have a history of stroke than dentate adults without appreciable periodontal disease.

J Periodontol 2006;77:1744–54.