



In animal experiments brief cerebral ischaemia protects against the injurious effects of prolonged subsequent ischaemia, a phenomenon known as ischaemic preconditioning. Now researchers in Oregon (*Lancet* 2003;**362**:1028–37; see also commentary, *ibid*: 1007–8) have used RNA microarray analysis on mouse brains to show that preconditioning alters gene activity. Injurious ischaemia (middle cerebral artery occlusion for 60 mins) induced upregulation of gene expression whereas with preconditioning (occlusion for 15 mins) followed by injurious ischaemia there was downregulation of gene activity. The downregulated genes were important for glucose metabolism, protein turnover, cell-cycle regulation, and ion-channel abundance. Genes involved in hypocoagulation were upregulated. The changes are similar to those involved in hibernation. It is hoped that such research might lead to therapeutic neuroprotection.

After infectious mononucleosis the risk of Hodgkin's lymphoma is increased but it is not known whether the association is causal. Data from Denmark and Sweden (*New England Journal of Medicine* 2003;**349**:1324–32) suggest that it probably is. The study included 38555 people who had had infectious mononucleosis and 24 614 who had not. Forty-six subjects developed post-infectious-mononucleosis Hodgkin's disease and 16 of 29 tumours from these subjects tested positive for Epstein-Barr virus (EBV). The risk of EBV-positive Hodgkin's lymphoma was increased fourfold after infectious mononucleosis. There was no increase in EBV-negative Hodgkin's lymphoma. Average time lapse from infectious mononucleosis to Hodgkin's lymphoma was estimated at 4 years. The absolute risk of Hodgkin's lymphoma after infectious mononucleosis is around 1 in 1000.

In a Zurich university hospital department (*Heart* 2003;**90**:319–23) 13 500 echocardiography studies performed over a period of 38 months showed severe tricuspid regurgitation in 229 cases. In ten cases the regurgitation was due to congenital tethering of valve leaflets by aberrant chordae tendineae. Four of these patients were aged 12, 17, 18, and 20 years when investigated and the other six ranged in age from 35 to 73 years. Seven patients also had short non-aberrant tendinous chords and five of these had dilatation of the right ventricle or tricuspid annulus.

Awareness of this anomaly may be important when planning surgery.

Children must take part in activities such as sledging; sledging is fun. But, of course, it is not completely harmless fun. In Aberdeen (*Emerg Med J* 2003;**20**:538–9) there was snow on the ground for 16 days in December–January, 2001–2. Of 422 attendances at the children's accident and emergency department during that time 46 (11%) were because of sledging injuries. The 25 boys and 21 girls ranged in age from 2 to 13 years. There were 16 limb bone fractures and eight children were admitted to hospital. The most common mechanisms were falling off the sledge or colliding with solid objects such as trees or fences. The authors of this paper list seven ways of trying to reduce the danger.

Standard pulse oximetry provides a measure of oxygen saturation and heart rate but not respiratory rate. Workers in Edinburgh (*Emerg Med J* 2003;**20**:524–5) examined pulse oximeter wave forms (plethysmograms) using wavelet signal analysis techniques (wavelet transforms) and noticed that a signal corresponding to respiratory rate was detectable within the plethysmogram. Their initial analyses were of traces from 55 critically ill children but they have now confirmed in adult volunteers that by using wavelet transforms it is possible to monitor respiratory rate and changes in respiratory rate, including apnoea, with a standard pulse oximeter. Only minor adaptations to current technology are needed.

One feature of chronic lung disease of prematurity (CLD) is the persistence of increased numbers of neutrophils in the airways. Neutrophils usually last about 24 hours in the circulation before undergoing apoptosis (programmed cell death). They last longer in tissues, probably because of the presence of antiapoptotic cytokines. The persistence of functioning neutrophils because of delayed apoptosis may be a cause of lung damage. Researchers in Leicester (*Thorax* 2003;**58**:961–7) obtained bronchoalveolar lavage (BAL) samples from 32 infants receiving mechanical ventilation for respiratory distress syndrome (RDS). Thirteen of these infants (median gestation 26 weeks) subsequently developed CLD and 19 (median gestation 31 weeks) did not. The CLD group had fewer apoptotic neutrophils in BAL fluid at

age 7 days than did those who did not develop CLD (0.7% vs 17% of neutrophils with typical condensed nuclei of apoptosis). BAL fluid obtained in the first 2 days of life from infants who recovered from RDS promoted apoptosis in human neutrophils in vitro but fluid from the CLD group did not. Among a third group of 20 infants treated with extra corporeal membrane oxidation day 1 BAL fluid from survivors was proapoptotic but fluid from infants who subsequently died was not. Apoptosis in neutrophils plays an important part in bringing to an end the neutrophil component of inflammation. Suppression of apoptosis in airway neutrophils may be a cause of lung damage in infants who develop CLD.

In Kenya the use of 2.5% povidone-iodine eye drops at birth has reduced the incidence of ophthalmia neonatorum but a residual incidence of about 13% has persisted. It was argued that a second application within 24 hours of birth might provide more effective prophylaxis but a trial including 719 infants (*Br J Ophthalmol* 2003; **87**:1449–52) has shown no benefit from the two-dose method. Among infants who received only one application at birth 18.4% returned within a month with a discharging red eye. Among infants who received two applications 24.3% returned with an inflamed eye. No infant developed gonococcal ophthalmia but around 10% of the infants who came back with an inflamed eye had evidence of infection with either *Chlamydia trachomatis* or *Staphylococcus aureus*.

Does Harry Potter cause headaches? A doctor in Washington, DC (*New England Journal of Medicine* 2003;**349**:1779) has described three children aged 8–10 years who developed a dull, generalised headache of varying severity while reading the latest 870-page Harry Potter book. One of the children also reported neck and wrist pains. Two of them had read the book in a prone position and the third supine. The pains disappeared after finishing the book but two of the sufferers were unwilling to break off in the middle and preferred to use paracetamol as the means to the end. (Could this be a father and children story, Lucina wonders?) Over five successive books there has been an increase from 300 pages and around 0.6 kg to 870 pages and around 1.4 kg. Both unpickupable and unputdownable, it seems.