## **MINERVA**



An infant with respiratory distress Try the picture quiz in ENDGAMES, p 1145

Could Alzheimer's disease be a cerebral form of glaucoma? A paper in 1994 speculated that high intracranial pressure might increase the risk of developing Alzheimer's and current research presented in *Medical Hypotheses* supports this notion (2010;74:973-7 doi:10.1016/j. mehy. 2009. 12.019). Exposure of tissue in the central nervous system to high pressure is not unique—a similar situation occurs in the intraocular pressure in eyes with glaucoma. The way ganglion cells in the retina die in glaucoma is similar to the death of neuronal cells in Alzheimer's. The anatomical and functional similarities between the intracranial pressure and intraocular pressure spaces could be the link between Alzheimer's and glaucoma.

Children with sickle cell disease are living longer, but as they move into adult care, their survival advantage vanishes, and they remain at high risk of early death. The evidence from one large US cohort study suggests that quality of care has improved, with more initial and early visits and preventative interventions for young children. Sepsis is no longer the main cause of death. However, all the recent deaths in the cohort occurred in patients over 18 years old, and most of these occurred around the time of the transition to adult care (*Blood* 2010;115:3447-52 doi:10.1182/blood-2009-07-233700).

Staff in UK hospitals are no better than in US hospitals at using intravenous proton pump inhibitors appropriately. Use of intravenous proton pump inhibitors should be initiated for endoscopic evidence of recent upper gastrointestinal bleeds in patients who are nil by mouth with a valid indication for oral proton pump inhibitors, and also for stress ulcer prevention in critical care settings. In one teaching hospital, 75% of intravenous proton pump inhibitors prescriptions were not clinically indicated, and 60% of these were made on nonmedical wards. Inappropriate prescribing was more common for female patients and more commonly made by junior doctors (QJM 2010;103:327-35 doi:10.1093/qjmed/hcq019).

Air pollution could influence survival after stroke (Stroke 2010;41:869-77 doi:10.1161/ strokeaha.109.567743). A 10 year follow-up of patients with a first stroke in central London reported that a 10 µg/m³ increase in nitrogen dioxide was associated with a 28% (95% CI 11%-48%) increase in risk of death. A 10 µg/m³ increase



A 33 year old circumcised man attended accident and emergency with a two day history of meatal itching and difficulty passing urine. He was sent home on doxycycline for a presumed sexually transmitted infection. Still unable to pass urine he returned and was given amoxicillin for presumptive gonorrhoea, and was advised to attend the genitourinary clinic. His pain intensified and taking matters into his own hands, he sliced off the white fleshy "tag" over the meatus, allowing him to pass urine. He was finally diagnosed with progressive meatal lichen sclerosus resulting in meatal stenosis. The white, soft, leathery appearance of the meatus is often mistaken by non-specialists for a crusty urethral discharge and the underlying condition needing meatal dilatation or meatoplasty is missed. Lichen sclerosus is a precursor of malignancy in 5% of cases, but topical steroids can arrest its progress.

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in particulate matter less than 10  $\mu$ m in diameter was associated with a 52% (6% to 118%) increase in risk of death. If the link is causal, the researchers say a 10  $\mu$ g/m³ reduction in nitrogen dioxide exposure could offer a similar advantage to that offered by stroke units.

The Medicines and Healthcare products Regulatory Agency recently recommended a "warm drink of lemon and honey" to replace the multitude of over-the-counter cough remedies for young children that they banned. But was this advice grounded in folklore or evidence? Apart from being funded by the US National Honey Board, a

single randomised controlled study of honey and coughs published in 2007 apparently contained many flaws. Pharmacologists say promoting honey for coughs could be considered "reckless" and that parents should ask professionals to make a beeline for better research (Journal of the Royal Society of Medicine 2010;103:164-5 doi:10.1258/jrsm.2010.090445).

Prolonged immobilisation for injuries to the Achilles tendon can lead to a risk of deep vein thrombosis. However, in one study over two years exploring the risk of venous thromboembolism in 208 patients immobilised in a cast, only 1% had a venous thromboembolism risk factor documented in their hospital records, while 6.3% developed symptomatic venous thromboembolism. As this incidence is similar to that reported after elective hip replacement, the authors suggest that the same level of protection is provided to those immobilised for Achilles tendon injuries as those undergoing hip replacement (*The Journal of Bone and Joint Surgery* 2010;92-B:646-50 doi:10.1302/0301-620X.92B5).

Norway has identified an effective way to retain doctors in its northernmost territory—something other countries might find useful. Establishing a medical school in the northern city of Tromsø was only partly effective. The more successful intervention was to create lots of opportunities for professional development as well as strategies for reducing professional isolation. This allowed trainees and their families to put down roots in rural communities (*Bulletin of the World Health Organization* 2010;88:390-4 doi: 10.2471/BLT.09.072686).

How dangerous is it to wake up? A multinational 12 year study shows a surge in blood pressure in the morning is associated with a 30-45% increase in risk for cardiovascular events. Despite a natural decline in blood pressure during sleep of 10—30%, a systolic increase of more than 20 mm Hg within two hours of waking up is now known to be associated with cardiovascular morbidity and mortality in the early morning. These findings suggest monitoring of blood pressure and heart rate in the early morning might be beneficial, and extended-release, anti-hypertensive medication taken at night might revolutionise morning cardiac risk (*Hypertension* 2010;55:1040-8 doi:10.1161/HYPERTENSIONAHA.109.137273).

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