

Carphology by A Fo Ben



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New hippocampi for old

While A Fo Ben recognises that only a limited number of mice attend the average neurology clinic, occasionally murine news is sufficiently noteworthy to merit a mention. We have known for some time that new neurones are produced in the dentate gyrus of the hippocampus in adult animals and that these cells may account for up to 10% of the granule cell layer. However, although cell death in the dentate occurs in several mood and cognitive disorders, there are no data on the behavioural effects of increasing adult neurogenesis. Here, mice with a gain-of-function mutation that increased survival of adult-born hippocampal neurones showed increased ability to discriminate between salient and non-salient fear stimuli, a behaviour dependent on the dentate gyrus. Importantly, increases in adult neurogenesis can follow interventions such as chronic antidepressant use and this study suggests that neurogenesis perhaps contributes to the long-term effects of these drugs.

Nature 2011;472:466–70

Lying, cheating medical students

The process of selecting applicants for medical school or postgraduate employment increasingly borrows techniques from business. What use therefore could a personality test be under these circumstances? Eighty-three medical students were studied, who scored as well as the 271 who were rejected. However, within 4 months of selection successful students scored less well on four of the five personality domains (conscientiousness, extroversion, openness to experience and agreeableness) but had higher scores on neuroticism. It appears that over 60% of students lied on their original appraisal—or the process of

enrolling in medical school made them more unpleasant human beings than those who were rejected.

Med Educ 2012;46:485–90

Elementary study

Magnesium is a neuroprotective agent useful particularly in treating eclampsia. A Cochrane review previously reported that intravenous magnesium combined with nimodipine was superior to placebo in preventing delayed cerebral ischaemia after subarachnoid haemorrhage, a condition with many similarities to eclampsia. In this phase-3 study, the authors investigated in 1204 patients whether intravenous magnesium alone was more effective than placebo. There was no difference in terms of the number of patients with a poor outcome between the group treated with 64 mmol/day of magnesium and those treated with placebo. An updated meta-analysis also confirmed this lack of efficacy. A study with important implications for routine care in a number of centres, it is also reassuring to see a 'negative' finding published in such a high-impact journal.

Lancet 2012;380:44–9

Ritual checking?

Autoantibody associated disorders are increasingly recognised—but do they have a role in obsessive compulsive disorder (OCD)? Of 96 only 19 people with OCD (20%) had detectable anti-basal ganglia antibodies (ABGA) compared with 2/50 controls (people with depression or schizophrenia). As many psychiatric conditions can be difficult to treat, is there a role for checking ABGA in people with psychopathology in routine clinical practice?

Br J Psychiatry 2012;200:381–6

Analgesia illustrated

The online resource centre TED.com houses many educational videos on

almost every topic under the sun. One of these, a 4-min animated short about the mechanisms of action of the NSAIDs and aspirin covers the major enzymes involved, the active sites and even the basics of neuropathic pain. The information is detailed, easily understandable and, as specific drug names are not mentioned, it is relevant to practice around the world. Well worth pointing patients to in clinic. <http://ed.ted.com/lessons/how-do-pain-relievers-work>

Photoshock

The ability of a flash photograph to reveal leukocoria (right eye figure 1A) and therefore prompt the hunt for retinoblastoma could be hampered by routine digital manipulation of photographs. Although the abnormality is clearly still present following 'red eye reduction' (figure 1B), the commonplace cloning the left eye to repair the 'glitch' (figure 1C) ameliorates the leukocoria—but removes the opportunity for intervention.

Lancet 2012;379:2465

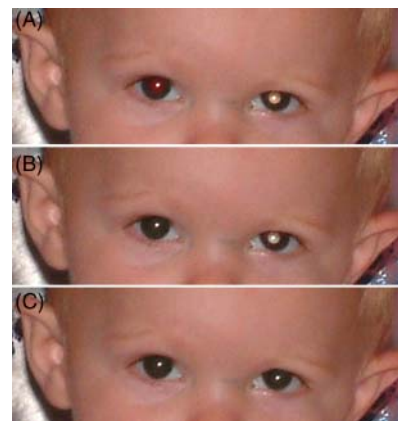


Figure 1 Home photography suggesting – then failing to suggest leukocoria.