



A 19 year old man with sudden onset shortness of breath and chest pain

Try the picture quiz in ENDGAMES, p 50

In a pilot clinical trial, non-smokers with mild cognitive impairment were randomly allocated to receive transdermal nicotine or placebo for six months, to ascertain whether stimulation of nicotinic acetylcholine receptors improved their symptoms (*Neurology* 2012;78:91-101, doi:10.1212/wnl.0b013e31823efcbb). The study found that the treatment was safe. However, although transdermal nicotine improved performances in some cognitive tests, and both patients and carers reported improvements, it did not change objective scores for clinical global impression of change, which was the study's primary clinical outcome.

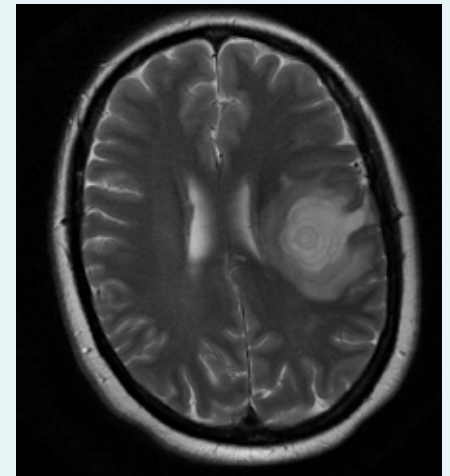
Skin preparation solutions have varying effects on the visibility of surgical site markings. In a prospective randomised trial, surgeons used a black permanent marker to mark the skin of 20 patients undergoing hip surgery with three random letters (*Journal of Bone and Joint Surgery* 2012;94:97-102, doi:10.2106/jbjs.j.00838). The patients were randomly assigned to receive either a skin preparation based on chlorhexidine or another preparation based on iodine. Digital photographs were taken before and after skin preparation. Ten orthopaedic surgeons were asked to identify the letters, and the photographs were assessed quantitatively by calculating the contrast between the mark and the skin. Chlorhexidine erased significantly more markings than iodine.

One perioperative injection of ketorolac (a non-steroidal anti-inflammatory drug) reduces postoperative pain and is associated with reduced postoperative nausea and vomiting, according to a meta-analysis of 13 trials and 782 patients (*Anesthesia and Analgesia* 2012;114:424-33, doi:10.1213/ANE.0b013e3182334d68). When determining the optimum dose, the study authors concluded that the 60 mg dose offered significant benefits, although insufficient data were available to assess a 30 mg dose.

Postnatal mental health problems are more common in lower income countries than in higher income countries (19.8% v 13%), according to a systematic review (*Bulletin of the World Health Organization* 2012;90:139-149G, doi:10.2471/BLT.11.091850). Important risk factors were poverty, unintended pregnancy, unmarried status, having an unsupportive partner or hostile in-laws, domestic violence, a history of mental health problems, and, in some countries, giving birth to

A 53 year old woman presented with a two week history of right sided limb weakness and expressive dysphasia. Magnetic resonance imaging of the brain showed a mass in the left frontoparietal region with a concentric ring appearance. Because of alternating bands of higher and lower signal indicating layers of myelinated and demyelinated tissue, this pattern is characteristic of Balo's concentric sclerosis, which is considered to be a rare subtype of multiple sclerosis. The disease is often monophasic and is usually treated with high dose steroids. As with this patient, brain biopsy is sometimes performed to exclude other possibilities, including the presence of tumour and abscess.

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Patient consent obtained.

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a girl. Protective factors were a good education, permanent employment, belonging to the ethnic majority, and having a kind and trustworthy partner. Researchers also found a paucity of data from lower income countries compared with higher income countries.

At least one in 15 motor vehicle crashes are probably intentional but remain unrecognised as attempted driver suicide. An *Injury* review states that the identification of such disguised suicide attempts is difficult, and the methodological conundrum of proving drivers' intent has led to an underestimation of incidence (2012;43:18-21, doi:10.1016/j.injury.2011.06.192). Risk factors associated with driver suicide included being a young man; involvement in single occupancy crashes; not wearing seat belts; being involved in single vehicle, head on collisions into trees and poles; and the absence of evidence suggesting loss of control of the vehicle before impact.

A randomised clinical trial of fluid restriction during colorectal surgery did not cut the length of hospital admission in the way that the researchers had hoped (*British Journal of Surgery* 2012;99:186-91, doi:10.1002/bjs.7702). Seventy nine patients received fluid restriction, and 82 received the standard fluid protocol. Hospital stays and readmission rates were the same in both groups. Patients receiving fluid restriction needed significantly more vasopressor drugs than those receiving the standard

protocol. However, fluid restriction did offer one benefit—patients had a significant reduction in complications.

Acute kidney injury induced by severe sepsis could be tackled with intravenous treatment of alkaline phosphatase (AP), according to a double blind, randomised, placebo controlled study of 36 critically ill patients (*Critical Care* 2012;16:R14, doi:10.1186/cc11159). Patients received either a bolus of AP, followed by a continuous infusion of AP, or placebo for 48 hours. The primary outcome was progress in renal function variables and the secondary outcome variables included changes in the concentrations of inflammatory mediators. The AP treatment group showed a significant rise in creatinine clearance and significant reductions in inflammatory mediators. AP is known to exert detoxifying effects on endotoxins.

A broken heart begets a broken heart. Grief over the death of a significant person is associated with a rapid increased risk of heart attack in the following grief filled days. An analysis of nearly 2000 patients enrolled in the Determinants of Myocardial Infarction Onset Study between 1989 and 1994 found that 270 (13.6%) had experienced a significant loss in the six months before their infarct, of whom 19 had experienced a significant loss the day before their infarct (*Circulation* 2012;125:491-6, doi:10.1161/circulationaha.111.061770).

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