



An unusual cause of stroke and hypoxia
Try the picture quiz in
ENDGAMES, p 983

A new, highly sensitive assay for cardiac troponin T was evaluated in a general population taking part in the Atherosclerosis Risk in Communities study. Cox proportional hazards models were used to adjust for traditional coronary heart disease risk factors, kidney function, C reactive protein, and natriuretic peptide in nearly 10 000 older adults who were free from heart disease and stroke at baseline. Cardiac troponin T detected by this highly sensitive assay was associated with incident heart disease, mortality, and heart failure in this group (*Circulation* 2011, doi:10.1161/circulationaha.110.005264).

Rotator cuff tears are the most frequent tendon injury in adults. An Israeli study followed up 51 adult patients with full thickness rotator cuff tears that were not surgically treated, for up to three years. At follow-up, 49% of the tears had increased in size, 43% had not changed, and 8% had shrunk. They found no correlation between the patient's age and change in size. But substantial pain at follow-up was associated with a clinically significant increase in tear size (*American Journal of Sports Medicine* 2011;39:710-4, doi:10.1177/0363546510393944).

When seriously obese patients undergo bariatric surgery they gain more than just a better figure: they also seem to experience an improvement in severe migraine headaches. A prospective observational study of 24 patients undergoing bariatric surgery who had migraine showed reductions in severity and in the number of days with headache. No mechanism to explain these observations was offered, but the authors wonder if more modest, behaviourally generated weight losses could bring about similar improvements (*Neurology* 2011;76:1135-8, doi:10.1212/wnl.0b013e318212ab1e).

Research has suggested that people with Parkinson's disease may enjoy an improved gait after treatment with methylphenidate. But in a small randomised placebo controlled clinical trial involving 23 eligible patients with Parkinson's disease, no change in gait was seen in either group among the 17 who completed the trial. Not only that, but methylphenidate also tended to worsen measures of motor function, sleepiness, and quality of life (*Neurology* 2011;76:1256-62, doi:10.1212/wnl.0b013e3182143537).



This patient undergoing haemodialysis, developed progressive painful necrotic areas on both legs. Skin biopsy and radiographs showing diffuse small vessel calcification supported a diagnosis of calciphylaxis. The lesions gradually improved with sodium thiosulphate treatment. Calciphylaxis is an increasingly recognised complication of end stage renal disease. It is characterised by systemic medial calcification of the arterioles causing ischaemia and subcutaneous necrosis. Risk factors include being female, high serum phosphate, and drugs—particularly warfarin, agents containing calcium, and corticosteroids. Treatment includes wound care, analgesia, and correction of biochemical abnormalities. Sodium thiosulphate acts by dissolving calcium.

Neeraj Dhaun (bean.dhaun@ed.ac.uk), specialist registrar and research fellow, **Laura Montgomery**, core training year 2, **Caroline Whitworth**, consultant, **Jeremy Hughes**, consultant, **James Harper**, radiologist, Department of Renal Medicine, Royal Infirmary of Edinburgh, Edinburgh EH16 4SA, UK

Patient consent obtained.

Cite this as: *BMJ* 2011;342:d2538

Smoking tobacco by water pipe may affect lung function. A systematic review and meta-analysis that looked for evidence about lung function and also compared the effects of water pipe smoking and cigarette smoking identified six

relevant studies. Compared with no smoking, water pipe smoking was associated with a significant reduction in the forced expiratory volume in one second, and all measures of lung function were similar to those seen in cigarette smokers. The authors conclude that water pipe smoking is likely to be a cause of chronic obstructive pulmonary disorder (*Chest* 2011;139:764-74, doi:10.1378/chest.10-0991).

Should patients with isolated patello-femoral arthritis be offered a less invasive procedure—patello-femoral replacement surgery—rather than full total knee replacement? Early results in 51 knees (35 patients) are disappointing. The estimated survival rate at three years in one study was 63% with revision as the end point, or 46% with revision and ongoing moderate or severe pain as the end point. The surgeons don't recommend its use (*Journal of Bone and Joint Surgery* 2011;93-B:484-9, doi:10.1302/0301-620X.93B4.25899).

Complex structures that resemble embryonic eyes can appear spontaneously when a bunch of cultured stem cells organise themselves, according to *Nature* (2011;472:51-8, doi:10.1038/nature09941). A Japanese team grew floating clusters of mouse embryonic stem cells in tissue culture medium. The clusters organised themselves into a three dimensional layered structure that looked like the optic cup, and a two walled pouch-like structure, which developed into inner and outer layers of the retina during embryogenesis. The team says the cells were not pushed, pulled, or pressurised into any particular shape—it just happened.

What's the value of posters presented at medical meetings? A study in *Clinical Medicine* assessed posters' memorability and looked at the factors that influenced their appeal to expert delegates (2011;11:138-41). The authors conclude that the value of posters needs to be improved for both presenters and delegates. Currently, many posters aren't realising their potential. Only a minority read them, few ask questions, and content recall was poor. Visual appeal should be maximised using graphs and pictures and text should be minimised, say the investigators.

Cite this as: *BMJ* 2011;342:d2540