## MINERVA

Send comments or suggest ideas to Minerva: minerva@bmj.com



Axial computed tomography of the skull base

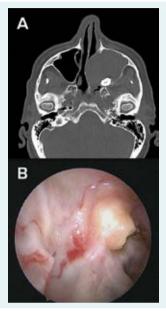
Try the anatomy quiz in ENDGAMES, p 38

Helping people with type 2 diabetes to lose weight is difficult work. But in a field bedevilled with surrogate outcomes, weight loss is one outcome that we can be pretty certain will benefit people in the long term. A randomised trial from California and Minnesota (*Diabetes Care* 2014, doi:10.2337/dc13-2900) adds to the growing evidence that the most successful diet is one that restricts carbohydrate rather than fat. In 227 adults with type 2 diabetes and a mean starting weight of 105.5 kg, relative weight loss was 7.4% (95% CI 5.7% to 9.2%), 9.0% (7.1% to 10.9%), and 2.5% (1.3% to 3.8%) for the lower fat, lower carbohydrate, and usual care groups.

Co-amoxifruse is the imaginary name of a drug combination often given to breathless older patients. Usually furosemide is given first. This was confirmed in a recent study from Ottawa, where paramedics have a medical directive to administer nitroglycerin and furosemide to any patient thought to have acute cardiogenic pulmonary oedema (Emergency Medicine Journal 2014, doi:10.1136/emermed-2013-202874). In fact, a third of patients arriving in hospital after furosemide administration turned out to have a different diagnosis, but the investigators found that nobody seemed to have been harmed, and some may have benefited.

Spotting child abuse is important, but so is not mistaking physical illness for abuse. The Examining Siblings To Recognize Abuse (ExSTRA) research network carried out a prospective observational study of 2890 children who were evaluated for physical abuse between 15 January 2010 and 30 April 2011 (Archives of Disease in Childhood 2014, doi:10.1136/ archdischild-2013-304701). Among these, 137 (4.7%) had mimics identified; 81 mimics (59.1% of mimics and 2.8% of the whole cohort) included non-cutaneous components. The largest category of mimics was metabolic bone disease (28%), followed by haematological or vascular (20%), infectious (16%), skeletal dysplasia (10%), neurological (9%), oncological (5%), gastrointestinal (2%), and other (10%).

Readers of Iain McGilchrist's magnificent exploration of the two halves of the brain, *The Master and His Emissary*, will be aware that the corpus callosum is there to make sure there is the right kind of traffic between the hemispheres. Without the two million fibres that connect them,



A 55 year old man presented with complete left sided nasal blockage. Computed tomography of his sinuses showed an ectopic third molar tooth in the posterior wall of the left maxillary sinus, with an associated dentigerous cyst obstructing the left nasal cavity (fig A). The cyst was marsupialised using a minimally invasive transnasal endoscopic technique and its lining removed with the tooth (fig B). Ectopic teeth erupted in the maxillary sinus are rare and usually asymptomatic. They are commonly diagnosed as coincidental findings on radiological investigations. Dental related pathology should always be considered in cases of maxillary sinusitis especially when the presentation is unilateral.

Rami J Salib (rami.salib@uhs.nhs.uk), senior lecturer in rhinology/consultant otorhinolaryngologist, Philip G Harries, consultant otorhinolaryngologist, Department of Ear, Nose, and Throat Surgery, University Hospital Southampton NHS Foundation Trust, Southampton, UK

Patient consent obtained.

Cite this as: BMJ 2014;348:g3201

master and emissary would be unable to work in concert, and this is what happens in people with agenesis of the corpus callosum. A study in *Brain* (2014, doi:10.1093/brain/awu070) shows how these people exhibit localised deficits in nonliteral language comprehension, humour, theory of mind, and social reasoning. The authors make some intriguing comparisons between this condition and the features of autism.

Methoxyflurane is an inhaled anaesthetic developed in the 1960s. It fell out of favour because when given as a prolonged general anaesthetic it can cause dose related kidney damage. However, at sub-anaesthetic doses it can be an effective and immediate analgesic without the risk of nephrotoxicity. The Australians have been using it this way for more than 30 years, and a trial has recently been conducted to assess its effectiveness in six UK hospital emergency departments (Emergency Medicine Journal 2014, doi:10.1136/ emermed-2013-202909). The investigators found that given at low doses through a Penthrox inhaler, methoxyflurane is a good analgesic with few adverse effects. However, Minerva wonders whether wider use of this fluorinated hydrocarbon in clinical practice might damage the ozone layer.

Millions of words have been written about neurotransmitters in the brain and how they can affect mood and function, but Minerva is not aware of any blood tests to measure them in routine psychiatric practice. This may be about to change. A study from Shanghai (*British Journal of Psychiatry* 2014, doi:10.1192/bjp. bp.113.134064) investigated the predictive value of measuring brain derived neurotrophic factor (BDNF) to determine whether a first episode of major depression would be followed by a diagnosis of bipolar disorder within three years. They found that plasma BDNF levels had a useful predictive value when combined with measuring gene expression of *BDNF* by mRNA analysis. The area under the receiver operating characteristic curve was 0.8—not bad for an exploratory diagnostic test, and much better than guesswork.

Minerva is always flattered when things are named after her. Naturally she wishes they could be as beautiful, sapient, and enchanting as she is herself, but this is hardly possible. The newly published MINERVA trial is a case in point: it shows that in patients with bradycardia and atrial tachyarrhythmias, advanced pacemakers featuring atrial preventive pacing and atrial antitachycardia pacing and managed ventricular pacing work better than standard dual chamber pacing (European Heart Journal 2014, doi:10.1093/eurheartj/ehu165). So many ugly words, my dears, and such a niche market. I don't want to make a fuss about my name being used for this trial, but in future, would investigators please ask me first?

Cite this as: BMJ 2014;348:g3189

40 BMJ | 17 MAY 2014 | VOLUME 348