

Masala

To intubate or not to intubate?

Researchers from the American Heart Association's Get With The Guidelines-Resuscitation group compared survival-to-hospital discharge rates in patients who had or had not received tracheal intubation during in-hospital cardiopulmonary resuscitation (CPR). Using data from 668 hospitals, 43 314 patients who had been intubated within 15 minutes of cardiac arrest were compared to an equal number of matched patients who had not been intubated. Survival-to-hospital discharge was 16.3% in patients who had been intubated compared to 19.4% in those who had not been intubated, a risk reduction of 16%. Both return of spontaneous circulation (57.8% v. 59.3%) and good functional outcome (10.6% v. 13.6%) were also significantly lower in patients who were intubated. Possible reasons include interruption in chest compressions and delay in defibrillation in patients who were intubated (*JAMA* 2017;**317**:494–506).

Sleeve gastrectomy or Roux-en-Y gastric bypass for morbid obesity

Of the different surgical procedures in use for treating morbid obesity, sleeve gastrectomy is technically easier and has fewer complications than Roux-en-Y gastric bypass. The two procedures were compared in the Swiss Multicentre Bypass Or Sleeve Study (SM-BOSS) which randomized 217 patients (mean [SD] body mass index 44 [11] kg/m², mean age 43 [5.3] years, 72% women) to undergo either procedure. Interim results at 3 years of follow-up revealed similar weight loss in the two groups—approximately 70% of baseline weight. Improvement in comorbid conditions was also comparable in the two groups with the exception of dyslipidaemia and gastro-oesophageal reflux disease which were better treated by Roux-en-Y gastric bypass. The need for reoperation due to complications was similar in the two groups. These results may lead to more widespread use of sleeve gastrectomy for bariatric surgery (*Ann Surg* 2017;**265**:466–73).

Long-term outcomes with trastuzumab in carcinoma breast

The multicentric HERA (HERceptin Adjuvant) trial was an open-label, phase 3 trial including 5099 women with early HER-2 positive breast cancer. Following completion of primary treatment for carcinoma breast (including surgery, chemotherapy and radiotherapy), patients were assigned to receive 1 year of trastuzumab ($n=1702$), 2 years of trastuzumab ($n=1700$) or observation ($n=1697$). After a median follow-up of 11 years, patients assigned to 1 year of the drug had a 24% reduction in the risk of a disease-free survival event and a 26% reduction in mortality compared to those in the observation arm. There was no difference in disease-free survival or mortality between 1 and 2 years of trastuzumab. Estimates of 10-year disease-free survival were 63% for observation, 69% for 1 year of trastuzumab, and 69% for 2 years of trastuzumab (*Lancet* 2017;**389**:1195–205).

Screening for carcinoma cervix: Technique matters

Liquid cytology has largely replaced conventional cytology Pap smears for screening for cervical intra-epithelial neoplasia (CIN), a precursor of carcinoma cervix. Researchers in the Netherlands compared the incidence of carcinoma cervix diagnosed within six years of a normal screening evaluation using conventional cytology and two commonly used liquid

cytology-based techniques—ThinPrep and SurePath. This retrospective registry-based study included women with 5 924 474 normal screening samples (23 833 123 person-years). The 6 years of cumulative incidence of carcinoma cervix was 58.5 per 100 000 normal conventional cytology samples, compared with 66.8 for ThinPrep and 44.6 for SurePath showing that SurePath picks up more CIN than does ThinPrep. (*BMJ* 2017;**356**:j504)

Aspirin and cardiovascular events in type 2 diabetes

Low-dose aspirin is often prescribed for the primary prevention of cardiovascular events in patients with type 2 diabetes. The JPAD (Japanese Primary Prevention of Atherosclerosis With Aspirin for Diabetes) trial randomized 2539 Japanese patients with type 2 diabetes who were free of cardiovascular disease at baseline to receive aspirin (81 or 100 mg daily) or no aspirin. After a median follow-up of 10.3 years, aspirin use did not reduce cardiovascular events even after multiple adjustments were made to eliminate confounders such as age, sex, glycaemic control, smoking, hypertension and dyslipidaemia. The overall risk of haemorrhagic events was comparable in the two groups. However, gastrointestinal bleeding occurred in 2% of patients in the aspirin group and in 0.9% of patients who were not given aspirin. The incidence of haemorrhagic stroke did not differ between the two groups (*Circulation* 2017;**135**:659–70).

New oral drug for rheumatoid arthritis

Baricitinib is a member of a new class of oral drugs for the treatment of rheumatoid arthritis. It is a reversible inhibitor of the Janus kinases JAK1 and JAK2. In a multicentric phase 3 trial, 1307 patients with rheumatoid arthritis who had not responded to methotrexate therapy were randomized to continue methotrexate along with placebo, baricitinib 4 mg daily or adalimumab, a tumour necrosis factor (TNF) inhibitor 40 mg subcutaneously every fortnight. At 1 year of follow-up, a 20% American College of Rheumatology defined response in symptoms occurred in 70% of those given baricitinib, 40% of those on placebo and in 61% of those on adalimumab. Baricitinib also reduced radiographic progression in joint damage. Rates of adverse events were comparable between the adalimumab and baricitinib groups (*N Engl J Med* 2017;**376**:652–62).

'AK-47 24 Karat Gold' and an outbreak of zombies in New York!

On 12 July 2016, there occurred in Brooklyn, New York, what the press described as a 'zombie outbreak'. In a single neighbourhood, there were 33 persons found to be behaving as 'zombies'. Patients had smoked a chemical agent following which the person became slow to respond and had a blank stare. All patients recovered over a few hours with supportive care. Laboratory reports were normal and toxicological analysis failed to reveal the causative agent. A pouch containing a herbal product was recovered from one of the patients—it was labelled 'AK-47 24 Karat Gold' and contained packets of agglutinated herbal material. Chemical analysis of this material isolated a synthetic cannabinoid AMB-FUBINACA which had caused intoxication in the patients. The authors warn of the dangers of using unreliable 'herbal' products (*N Engl J Med* 2017;**376**:235–42).