

## Masala

### *Arthroscopic procedures of no benefit in knee osteoarthritis*

Arthroscopic lavage, debridement and partial meniscectomy are often used in the treatment of symptomatic osteoarthritis of the knee. A systematic review included 13 randomized controlled trials and 12 observational studies that compared arthroscopic with conservative management, mainly physiotherapy and intra-articular injections of steroid or hyaluronic acid. Knee arthroscopy resulted in a small reduction in pain at 3 months (mean difference of 5.4 on a 100-point scale) and at 2 years (mean difference of 3.1 points). Similarly, there was no significant improvement in function at 2 years. Knee arthroscopy had a risk of death of <1 in 1000, a risk of infection of 2 in 1000 and of venous thromboembolism of 5 in 1000. The procedure, though safe, is of no benefit in osteoarthritis of the knee (*BMJ Open* 2017;**7**:e016114)!

### *Which physicians are prescribing antibiotics for common cold?*

Researchers in Canada obtained data from administrative healthcare databases on 8990 primary care physicians and their 185 104 low-risk elderly patients who had been diagnosed to have non-bacterial acute upper respiratory tract infections—common cold, acute sinusitis, acute bronchitis or acute laryngitis. Forty-six per cent of these patients had been inappropriately prescribed antibiotics. Prescriptions for antibiotics were more often given by mid- to late-career physicians than by early-career ones; by physicians trained outside Canada and the USA; and by physicians who saw more than 25 patients per day than by those who saw fewer patients. The study identified older, busier clinicians as those who need to be made aware of rational prescribing of antibiotics (*Ann Intern Med* 2017;**166**:765–74).

### *Shining a new light on cancer cells*

Researchers in Canada tested a novel approach to making malignant cells more 'visible' to surgeons intraoperatively. They used an optics-based, label-free tissue interrogation system that combined Raman spectroscopy (RS), intrinsic fluorescence spectroscopy (IFS), and diffuse reflectance spectroscopy (DRS). The hand-held probe combining these systems was tested on the brain tissue of 15 patients undergoing brain surgery for primary or metastatic brain tumours. Readings were taken with the device at different points on the margins of the resected tumours and small biopsy samples were obtained from the same areas. On comparing the prediction of benign versus malignant areas made by the optics-based system with the results of histopathological examination, the device provided accuracy, sensitivity and specificity of 97%, 100% and 93%, respectively. This approach is expected to aid surgeons in ensuring more complete resection of tumours (*Cancer Res* 2017;**77**:1–9).

### *NSAIDs and the risk of myocardial infarction*

A meta-analysis using individual patient data from a cohort of 446 763 individuals, including 61 460 with acute myocardial infarction (MI), assessed the risk of MI with the use of different non-steroidal anti-inflammatory drugs (NSAIDs). Taking NSAIDs in any dose even for a week was found to raise the risk of having an MI. Using an NSAID for 1 to 7 days increased the

risk of having an MI by 24% for celecoxib, 48% for ibuprofen, 50% for diclofenac, 53% for naproxen and 58% for rofecoxib. The risk was greater with higher doses; risk remained the same for use beyond one month as for shorter durations. These data are surprising considering the fact that naproxen has always been considered to be a cardiac-friendly NSAID, with some studies even finding that it lowered the risk of cardiovascular disease (*BMJ* 2017;**357**:j1909).

### *Intra-articular steroid injections in knee osteoarthritis*

Researchers at Tufts Medical Centre randomized 140 patients with symptomatic osteoarthritis of the knee to receive either intra-articular steroids (40 mg of triamcinolone acetate) ( $n=70$ ) or saline ( $n=70$ ) every three weeks for 2 years. Annual MRI scans of the knees were used to quantify cartilage loss in the two groups and the Western Ontario and McMaster Universities Osteoarthritis index was used to assess symptoms. At the end of 2 years, there was significantly greater loss of cartilage volume in patients who received triamcinolone with no significant difference in pain. There was also a minimal rise in haemoglobin A1c levels in those who received intra-articular triamcinolone. Is it time to stop injecting steroids into osteoarthritic knees (*JAMA* 2017;**317**:1967–75)?

### *Onlay mesh reduces risk of incisional hernia*

The Primary Mesh Closure of Abdominal midline wounds (PRIMA) trial was conducted at 11 hospitals in Austria, Germany and the Netherlands. Adults at high risk of incisional hernia (those who were obese or were undergoing surgery for an abdominal aortic aneurysm) were randomly assigned to one of three arms: primary suture ( $n=107$ ); sublay mesh reinforcement ( $n=185$ ); or onlay mesh reinforcement ( $n=188$ ). At the end of 2 years of follow-up, the incidence of incisional hernia was 30% with primary suturing, 18% with sublay mesh reinforcement and 13% with onlay mesh reinforcement; a 73% risk reduction with onlay mesh versus primary suturing. The incidence of wound infections was similar in the three groups. Seromas were more often seen in those who had an onlay mesh procedure (*Lancet* 2017;**390**:567–76).

### *HEART helps in triaging patients with chest pain*

Researchers in the Netherlands assessed the effect of using the HEART (History, ECG, Age, Risk factors and initial Troponin) score for triaging patients with chest pain presenting to the emergency department. A total of 3648 patients were included; 1827 were randomly assigned to receive usual care and 1821 were managed on the basis of the HEART score at presentation. Those with a score of  $\leq 3$  were discharged; those with scores of 4–6 were admitted for observation and those with scores of 7–10 were taken for invasive management. The incidence of major adverse cardiovascular events at 6 weeks was similar in the two groups (2% to 3%) and there was no difference in re-admissions or recurrent emergency department visits. The authors suggest the use of HEART scoring is a safe and effective method for systematic triaging and could result in savings of €40 million annually in the Netherlands (*Ann Intern Med* 2017;**166**:689–97).

VIVEK ARYA