

30 days in medicine

Arthroscopy offers no benefit in subacromial shoulder pain

Shoulder arthroscopy is widely used, although its benefits are far from clear. Impingement of the rotator cuff tendons occurs frequently in patients aged >40 years and usually presents as a painful arc. As long ago as 1972, open decompression of the area was proposed, removing osseous spurs, often combined with tendon release and a bursectomy. This is generally now an arthroscopic procedure, frequently undertaken.

A recent multicentre trial that covered 32 hospitals and 51 surgeons in the UK was reported in *The Lancet*. Eligible patients had subacromial pain for at least 3 months, with intact rotator cuff tendons, and had completed conservative management including exercise therapy and at least one steroid injection. Participants were randomly assigned to arthroscopic subacromial decompression, investigational arthroscopy only (which was a placebo), or no intervention.

Surgical groups had better outcomes from shoulder pain and function compared with no treatment, but this difference was not clinically important. In addition, surgical decompression appeared to offer no benefit over arthroscopy only. These findings bring into question the value of this operation for these indications, of which patients should be aware when offered surgery.

Beard DJ, Rees JL, Cook JA, et al. Arthroscopic subacromial decompression for subacromial shoulder pain (CSAW): A multicentre, pragmatic, parallel group, placebo-controlled, three-group, randomised surgical trial. *Lancet* 2017 (epub 20 November 2017). [https://doi.org/10.1016/S0140-6736\(17\)32457-1](https://doi.org/10.1016/S0140-6736(17)32457-1)

Decreasing incidence of dementia found in birth cohort study

With an ageing population, the incidence of dementia appears to be increasing as we live longer. However, a recent analysis of the Einstein Aging Study, published in *JAMA Neurology*, shows that there is a declining incidence of dementia in those born after 1929. Individuals aged ≥70 years were enrolled in the Einstein Aging Study between 1993 and 2015 to examine trends in dementia incidence and concomitant trends in cardiovascular comorbidities. In this study, 1 348 people from Bronx County, New York, USA, were analysed for all-cause dementia incidence. Participants did not have dementia at enrolment.

The analysis showed that the incidence of dementia decreased in successive birth cohorts. The incidence per 100 person years was 5.09 in birth cohorts before 1920, 3.11 between 1920 and 1924, 1.73 between 1925 and 1929 and 0.23 in cohorts born after 1929, with the change point among those born after July of that year. At the same time, the prevalence of stroke and myocardial infarct also decreased, but the incidence of diabetes increased. Whether this decreasing incidence will contribute to a reduced burden of dementia given the ageing population remains to be seen.

Derby CA, Katz MJ, Lipton RB, et al. Trends in dementia incidence in a birth cohort analysis of the Einstein Aging Study. *JAMA Neurol* 2017;74(11):1345-1351. <https://doi.org/10.1001/jamaneurol.2017.1964>

Stenting does not improve exercise time in patients with medically treated angina

The main aim of percutaneous coronary intervention (PCI), colloquially called stenting, is symptom relief, generally improved exercise tolerance and time. However, a recent study in *The Lancet* suggests that this invasive procedure is no better than a placebo intervention. ORBITA is a blinded, multicentre randomised trial of PCI v. a placebo procedure for angina relief, carried out at five sites in the UK. Participants had severe (>70%) single-vessel stenosis, and received 6 weeks of medication optimisation after enrolment. Pre-randomisation assessments of cardiopulmonary exercise testing, symptom questionnaires and stress echocardiography were carried out before they were randomised 1:1 to undergo PCI or a placebo procedure. Follow-up was at 6 weeks, with the same assessments, measuring a difference in exercise time between the two groups.

Among the 230 patients randomised (105 assigned to PCI and 95 to the placebo procedure), there was no significant difference in the exercise time increment between the two groups. There were, however, serious adverse events, including pressure wire-related problems and five major bleeding events, in both groups.

Al-Lamee R, Thompson D, Dehbi H-M, et al. Percutaneous coronary intervention in stable angina (ORBITA): A double-blind, randomised controlled trial. *Lancet* 2018;391(10115):31-40. [https://doi.org/10.1016/S0140-6736\(17\)32714-9](https://doi.org/10.1016/S0140-6736(17)32714-9)

Patients in Africa are twice as likely to die after surgery as their global counterparts

Results from the African Surgical Outcomes Study show that patients in Africa are twice as likely to die after surgery compared with the global average for postoperative deaths. Prof. Bruce Biccard and colleagues carried out a 7-day international prospective observational cohort study of patients aged ≥18 years undergoing any inpatient surgery in 25 countries in Africa. A total of 11 422 patients were recruited from 247 hospitals, serving 810 000 people, served by 0.7 specialist surgeons, obstetricians and anaesthetists per 100 000 population, carrying out 212 surgical procedures per 100 000 patients a year.

Patients were younger, and with a lower risk profile, than reported in high-income countries. In spite of this, postoperative complications occurred in 1 977 out of 10 885 patients, and 239 out of 11 193 patients died. Infection was the most common complication.

Biccard BM, Madiba TE, Kluyts H-L, et al. Perioperative patient outcomes in the African Surgical Outcomes Study: A 7-day prospective observational cohort study. *Lancet* 2018 (epub 3 January 2018). [https://doi.org/10.1016/S0140-6736\(18\)30001-1](https://doi.org/10.1016/S0140-6736(18)30001-1)

B Farham
Editor
ugqirha@iafrica.com