

Corticosteroid injections relieve tennis elbow, but not for long

Researchers trying to make sense of the evidence evaluating injections for tendinopathy found 41 randomised trials. They were a mixed bag testing different treatments for different tendinopathies using different controls. One of the few conclusive findings was that corticosteroid injections relieve the pain of tennis elbow (lateral epicondylalgia), but not for long. Short-term results were uniformly positive, but longer-term results were uniformly negative. After 6 - 12 months, corticosteroid injections looked less effective for tennis elbow than more conservative options, including non-steroidal anti-inflammatory drugs and physiotherapy. Patients given multiple injections had worse pain at the end of long-term follow-up than those given single injections. The evidence evaluating corticosteroid injections for rotator cuff, patellar, or Achilles tendinopathy was too patchy to be useful.

Fifteen of the trials tested a multitude of other injectates including the sclerosing solution lauromacrogol, platelet-rich plasma, sodium hyaluronate, prolotherapy (solution of hypertonic glucose and local anaesthetic), aprotinin, and botulinum toxin. All remain experimental treatments, says a linked comment (doi:10.1016/S0140-6736(10)61308-6). Patients who agree to have them 'should do so in the spirit of research volunteerism'.

Clearly, injections of any kind are not a magic bullet, says the comment. We should perhaps focus on exercise therapy instead.

Coomes BK, Bisset L, Vincenzino B. *Lancet* 2010; doi:10.1016/S0140-6736(10)61160-9.

Fish oil fails to prevent recurrence of atrial fibrillation

There are good physiological reasons why fish oils might help to suppress atrial fibrillation, although a clinical effect has been hard to prove in randomised trials. Even 4 g per day of omega-3 fatty acids did not reduce recurrent fibrillation or flutter in the latest trial. This high dose worked no better than placebo for adults with recent paroxysmal atrial fibrillation (52% (135/258) v. 48% (129/269); hazard ratio 1.15, 95% CI 0.9 - 1.46) or a smaller number with a recent history of persistent atrial fibrillation who were in sinus rhythm after treatment (1.64, 0.92 - 2.92, favouring placebo).

The participants were relatively young and fit, with no evidence of structural heart disease. Just under half (45%; 298/663) were taking statins, and 39% (259/663) were taking inhibitors of the renin-angiotensin system. Only 13% (83/663) took antiarrhythmic drugs during the 6-month trial.

The authors were a little overoptimistic in their sample size calculation; therefore their trial was weaker than planned. An effect is still possible, they write, although it looks unlikely.

Kowey PR, et al. *JAMA* 2010; doi:10.1001/jama.2010.1735.

More chocolate, less atherosclerosis



Women who ate chocolate more than once a week were less likely to have an atherosclerotic event during nine years of follow-up than women who ate less, in a study from Australia. Chocolate consumption was associated with a significantly lower risk of all events (hazard ratio 0.76, 95% CI 0.60 - 0.97), ischaemic heart disease (odds ratio 0.65, 0.46 - 0.94), and heart failure (0.41, 0.22 - 0.76). Chocolate at least once a week was also associated with a lower prevalence of carotid artery plaques (0.77, 0.60 - 0.98). All analyses were adjusted for age, body mass index, socio-economic status, and energy intake at baseline.

The 1 216 women in this analysis were over 70 (mean age 75) years and recruited originally for a trial of calcium supplements. They reported chocolate intake in servings per day as part of a food frequency questionnaire at the start of the trial. The authors estimate that frequent consumers ate 1 - 5 g of cocoa a day.

This isn't the first study to suggest a link between chocolate and cardiovascular benefits, and these researchers think it is time for a well-designed trial. For once recruitment shouldn't be a problem.

Lewis JR, et al. *Arch Intern Med* 2010;170:1857-1858.

Diet and exercise programme works for severely obese people



Severely obese people can lose weight with a lifestyle-change programme, and it is better if exercise is started earlier rather than later. In a recent trial, all 130 participants received diet instructions, which prescribed an individualised daily allowance in energy intake and a food composition of up to 30% fat, 55% carbohydrates, and 25% protein. For the first 3 months of this 12-month trial, participants received two prepackaged replacement meals a day but only one meal in months 4 - 6. In addition, all participants were asked to walk briskly for 1 hour on 5 days each week; this could be achieved by accumulating 10-minute bouts.

Two approaches were tested in a randomised manner: starting exercise at study onset or delaying it to 6 months into the trial. Support was delivered through group, individual, or telephone contacts. All participants had a body mass index of 35 or above and none had diabetes.

At 6 months, those randomised to early exercise lost more weight than those who received delayed physical activity (10.9 kg v. 8.2 kg; $p=0.02$). The difference wasn't significant at one year though (12.1 kg v. 9.9 kg). On average, all participants lost about 10% body weight, reduced their body mass index by 10 points, and lost about 10 centimetres in waist circumference. Reductions in visceral and subcutaneous fat were seen, as well as improvements in other cardiometabolic risk factors, such as fat in the liver and insulin resistance.

Current guidelines discourage conservative treatments for weight loss and weight maintenance in severely obese people, but this needs to be re-thought, says the editorial. We need more trials of such interventions and better coverage from payers.

Goodpaster BH, et al. *JAMA* 2010;304:1795-1802.

BRIDGET FARHAM