



High-dose atorvastatin for stroke prevention

Statins, in general, are widely accepted as appropriate treatment for those with cardiovascular and cerebrovascular risk factors. In this report, the results of treatment with high-dose atorvastatin (80 mg/day) vs placebo are assessed in patients who have had a recent stroke or transient ischaemic attack (TIA). Unsurprisingly, 80 mg of atorvastatin per day reduced the overall incidence of strokes and of cardiovascular events, but there was a small increase in the incidence of haemorrhagic stroke.

An accompanying editorial was critical of the patient inclusion criteria and remarked that “the absolute benefit of treatment with atorvastatin was relatively modest.” Although the editorial commentator was not rapt with the high-dose atorvastatin, he strongly favoured the adoption of statin therapy into guidelines for treatment of ischaemic stroke.

N Engl J Med 2006;355:549–59 & 613–5

And more about statins—atorvastatin vs simvastatin

Statins are one of the great success stories of preventive medicine. Extensive evidence, excellent safety, and high efficacy have resulted in an exponential rise in prescriptions for statins, currently increasing at 30% a year in England. Statins represent the largest drug cost to the NHS (£78 million [Euros 1.1bn; US\$1.4bn] in 2004).

Similar trends in New Zealand also—simvastatin is the second most prescribed medicine (945,783 scripts in 2005) and the total cost of lipid-modifying agents in 2005 was over NZ\$60,000,000. We, in New Zealand, use simvastatin as it is fully funded. Atorvastatin can be obtained under special authority—albeit, with difficulty.

The author of this paper advocates the replacement of atorvastatin with simvastatin. In support, he quotes a head-to-head comparison of atorvastatin and simvastatin, which although underpowered, showed no difference between the drugs. And a meta-analysis of clinical trials using simvastatin 40 mg and atorvastatin 10 mg and 20 mg showed no significant differences in mortality, death from coronary heart disease, or stroke. And the punchline—using generic simvastatin as first line could save £2bn over five years in England.

PS—Paradoxically, in New Zealand, 40 mg of simvastatin is more expensive than 10 mg of atorvastatin.

BMJ 2006;332:1344–5

C-reactive protein (CRP) and cardiovascular disease

CRP, the classical acute-phase protein, is well known as a marker of inflammation and tissue damage. It is commonly used to detect subtle inflammation and some believe that it is predictive of impending myocardial infarction.

In this report, British researchers assert that CRP binds to ligands exposed in damaged tissue and then activates complement and increases myocardial infarct size in rats subjected to coronary artery ligation. They have developed a specific small-molecule inhibitor of CRP which abrogates the increase in infarct size and cardiac dysfunction produced by injection of human CRP.

Excellent, but, only in rat experiments! However, you have to start somewhere.

Nature 2006;440:1217–21

Use it or lose it—again

Observational studies have shown that older adults who report low physical activity levels are at elevated risk of mortality compared with those who report moderate or high levels of activity.

So what about the reverse? Does activity prolong life? An international gerontology study group documented the free-living activity energy expenditure in 302 high-functioning, community-dwelling older adults (aged 70–82 years). And you guessed it—those elderly US adults, who burned more energy, had a significant lower risk of death over a mean follow-up of six years.

Very encouraging for the healthy elderly, but unhelpful for those who cannot burn energy because of ill health.

JAMA 2006;296:171–9

Emerging emergency-medicine crisis

Overcrowding, hospital-bed shortages, and lack of specialist coverage in many emergency departments is a frequently heard theme, not only in New Zealand but elsewhere. Why? For a variety of reasons but the most compelling is that these departments provide far more than just urgent care for trauma and medical emergencies. Increasingly, they are called on to offer services that in the past were provided by personal physicians. As a result, emergency department staff and resources are often stretched to the limit.

Apparently it is particularly bad in the USA where it is sometimes necessary to direct ambulances to other facilities farther away, putting critically ill patients at increased risk.

In some respects, the situation in the USA is unique. Because 41 million people (about one in seven) have no health insurance, many seek help in emergency departments when they need medical care.

Lancet 2006;367:2033