



Coventina's Column

Leyla Sanai



It's always a worry when a drug that has revolutionised treatment of a particular condition is found years later to be linked to an increased risk of a different disease.

Angiotensin converting enzyme inhibitors (ACE-I) and then angiotensin receptor blockers (ARB), which don't cause the dry cough associated with ACE-I, both have dramatically beneficial effects in patients with cardiac failure, hypertension or diabetic nephropathy, all of which are common problems in Scotland. It was a shock then to see that a meta-analysis of previous randomised controlled trials of ARB in which cancer data was available (The Lancet Oncology. Early Online Publication, 14 June 2010, doi:10.1016/S1470-2045(10)70106-6) showed that in the 61,590 patients in five trials in which new cancer data was available, there was a significantly increased risk of a new cancer in patients who had received an ARB compared with those who hadn't (7.2% vs 6%). When data from 68,402 patients from five trials was examined for specific solid organ cancers, only new lung cancer occurrence was significantly higher in patients who had randomly been allocated to receive an ARB (0.9% vs 0.7%). Coventina derived minimal comfort from the fact that data on cancer deaths was available from 93,515 patients from eight trials and showed that the difference in death rate between patients allocated to an ARB and those not allocated to an ARB did not reach significance.

Telmisartan was the ARB used in 85.7% of patients who received ARBs as part of the trials with new cancer data, so it is a (perhaps unlikely) possibility that the problem is confined to Telmisartan. This meta-analysis raises concerns, and further studies on ARB and cancer risk are warranted, as is work on whether ACE-I are also associated with this increased incidence of cancer. In a typical case of do as I say, not as I do, Coventina has made the decision to stop her ARB but advises other patients not to do the same: it is a strong possibility that in patients with cardiac failure, hypertension or renal nephropathy, the benefits of ARBs vastly outweigh the purported small increase in cancer risk.



Cardioprotection from ARBs, other drugs and healthier lifestyles help reduce the number of patients requiring cardiac surgery but for those patients who nevertheless end up requiring coronary artery bypass grafting (CABG), embolism during the surgery is a real risk. A recent prospective randomised study (British Journal of Surgery: Volume 97 Suppl 4, June 2010, p S6-S7) looked at the efficacy of a fat filtration filter, devised to reduce the risk of fat embolism during CABG using cardiopulmonary bypass. The researchers found that use of the filter reduced fat emboli by 50%, as shown by dye-staining and counts of fat emboli under microscopy. Coventina is impressed and wonders if these filters also help catch fragments of calcium and other micro-debris that may be mobilised during cardiac surgery.



Elsewhere in the British Journal of Surgery was a report of a small pilot study on the detection of colorectal liver metastases using urine mass spectrometry (British Journal of Surgery: Volume 97 Suppl 4, June 2010, p S4-S5). The urine of ten patients with colorectal liver metastases, ten with hepatocellular carcinomas, ten with benign liver adenomas, and ten healthy kidney donors was analysed using Orbitrap mass spectrometry. 31,980 metabolites and peptides were detected, with differential patterns in the groups. The authors suggest that further

studies using larger patient numbers might allow classifiers to be constructed and validated which could lead to use of this technique as a diagnostic tool.



Age related macular degeneration (ARMD) may lead to severe loss of visual acuity and is a cause of much morbidity and distress. Options for treatment have up to now been very limited, but a recent trial (BMJ 10 June 2010;340:c2459) raises hopes for a new treatment. The researchers compared use of intravitreal injections of bevacizumab with standard treatment in patients with neovascular ARMD. Standard treatment consisted of photodynamic treatment with verteporfin for patients with a mainly classic type neovascular ARMD or intravitreal pegaptanib or placebo for hidden or minimally classic type neovascular ARMD. There was a significantly higher incidence of improvement in visual acuity in the bevacizumab group than in the standard one (32% versus 3%).



When Americans comment on the poor quality of British teeth, it's a fair bet that Scottish gnashers are near the top of their list of dental disharmony. Years of non-fluoridation of water supplies in parts of Scotland such as Glasgow coupled with a high intake of sugary food and drinks have led in many cases to large swathes of the population wearing 'wallies' by their thirties. But the adverse effects are not just dental and aesthetic - there is already data linking poor oral hygiene with cardiovascular disease, and a new study strengthens this evidence. The study (BMJ 27 May 2010;340:c2451) examined whether self-reports on tooth-brushing frequency correlated with cardiovascular disease and/or markers of inflammation. 11,869 adults in Scotland were included. People who reported low rates of tooth-brushing had a significantly higher risk of cardiovascular events and increased concentrations of C-reactive protein and fibrinogen. Coventina thinks it's always difficult to interpret these studies because of confounding factors - people who neglect oral hygiene are also likely to eat a poor diet and to smoke, while those who brush regularly are likely to be more health-conscious. While poverty exists, it would be a Marie Antoinette-ism to decree 'let them eat couscous.' Nevertheless, the findings suggest that encouraging good oral hygiene, which costs little, will have beneficial effects on the cardiovascular system.



A couple of decades ago it would have seemed unthinkable for healthy people to pay to be injected with botulinum toxin. Now, tens of thousands of people undergo this in order to transiently improve wrinkles. Botulinum toxin use is also increasing in areas of medicine - previously used rarely, it is now being tried for various different conditions. Coventina was asked recently whether she would like it in her hands to try and uncurl the scleroderma contractures (she declined). A recent study shows that it has been trialled for use as a prophylaxis for migraine (Clinical Neurology and Neurosurgery July 2010: Volume 112, Issue 6, p 463 - 466). The study of 72 people found botulinum toxin was as effective as amitriptyline for prophylaxis in chronic daily migraine. Coventina thinks trials comparing botulinum toxin to other more commonly used migraine prophylactic drugs are required, and is still uneasy about using a known toxin as a therapeutic agent.