

A MODERN CHIMERA

An Australian paediatric liver transplant recipient has created world news by taking on the immune system of her organ donor. The female patient, now aged 15 years, suffered acute fulminant hepatitis after a non-specific viral illness at 9 years of age for which liver transplant was performed. The postoperative course was complicated by acute biliary obstruction, profound lymphopaenia, haemolytic anaemia, and cytomegalovirus (CMV) infection. Over the following 12 months, clinicians were surprised to discover that the recipient's immune system appeared to have undergone complete haemopoietic chimerism, resulting in tolerance of the liver allograft. The recipient has taken on the blood type of the donor and lost antibody responses to measles and mumps, against which she had been previously immunised. All immunosuppressive therapy has since been withdrawn and the patient remains well, with no evidence of graft-versus-host disease and normal liver function. The authors comment that the profound lymphopaenia experienced by the child and the immunosuppressive effects of therapy, in combination with the early CMV infection, may have contributed to the engraftment of donor cells.

N Engl J Med 2008; 358: 369-374

BIG HEADACHES FOR SMALL PEOPLE

Treating childhood migraine can be difficult, but it appears that only a few medications are effective, according to the results of a meta-analysis of randomised controlled trials. Canadian researchers analysed the findings from 11 clinical trials including over 3000 participants. The trials assessed the effects of paracetamol, ibuprofen, sumatriptan, zolmitriptan, rizatriptan, and dihydroergotamine. Only ibuprofen and sumatriptan showed statistically significant pain relief and relief from headache in paediatric migraine patients. The researchers suggest a trial of ibuprofen prior to sumatriptan in the management of acute paediatric migraine.

J Paediatr Child Health 2008; 44: 3-9

ANTIPSYCHOTICS FOR AGGRESSION

Although a common practice, there seems to be little evidence supporting the use of antipsychotic drugs in the management of aggression in patients with intellectual disability, say British and Australian researchers. In a randomised controlled trial, 86 patients with aggressive challenging behaviour were randomly allocated to three groups, each receiving haloperidol, risperidone, or a placebo for 26 weeks. Outcome measures included change in aggressive and aberrant behaviour, quality of life, and the feelings of the carer responsible for the person treated. Assessments were made at 4, 12, and 26 weeks after randomisation. Aggression decreased substantially in all three treatment groups by 4 weeks, with the placebo group showing the greatest change. There was no difference between the treatments in relation to the other outcome measures. The authors comment that although antipsychotic drugs may have some place in the treatment of people with intellectual disability, it appears that routine prescription of such medications early in the treatment of aggressive challenging behaviour is not warranted.

Lancet 2008; 371: 57-63

AN ASPIRIN A DAY...

Some people appear to be "resistant" to aspirin; their platelets are not affected in the same way as those who benefit from therapy. People with a resistance to the effects of aspirin appear to be at a greater risk of cardiovascular morbidity than those who are sensitive to aspirin, according to the results of a systematic review and meta-analysis. Using mainly studies in which compliance with aspirin therapy was confirmed, Canadian researchers conducted a meta-analysis of results to determine the effect of aspirin resistance on cardiovascular events. In total, 28% of the 2930 patients studied were reported as aspirin resistant; these people were at a greater risk of a cardiovascular-related event, a new cerebrovascular event, or death. The authors comment that the lack of an acceptable platelet-related assay of aspirin resistance hinders research into the phenomenon.

BMJ 2008; 336: 195-198



VITAMIN E FOR OLDER PEOPLE

Keeping older people active and independent is a common goal of clinicians and public health officials alike. There is little evidence of the effect of poor nutrition on physical function and the role of nutrition in the disablement process. An Italian study has set out to assess the effects of serum micronutrients on physical function in older people and has come up with some interesting results. The 3-year longitudinal study included 698 people aged 65 years or older living in the community in Tuscany, Italy. Serum micronutrients including vitamins E, B and D, iron, and folate were measured. To assess function, researchers used the Short Physical Performance Battery, a standardised measure of the aetiology and progression of functional decline and disability. A low concentration of vitamin E appeared to be associated with a subsequent decline in physical function. The researchers suggest that vitamin E, acting as a lipid-soluble antioxidant, plays a role by neutralising free radicals and minimising oxidative damage to tissues.

JAMA 2008; 299: 308-315

Dr Tanya Grassi, MJA