Selective serotonin-reuptake inhibitor use by patients with acute coronary syndromes

Selective serotonin-reuptake inhibitors are often used to treat anxiety, depression and other conditions that commonly affect patients with coronary artery disease. Selective serotonin-reuptake inhibitors inhibit platelet activation and may, therefore, affect outcomes in patients with acute coronary syndromes.

A retrospective study was performed in 1254 patients with acute coronary syndromes comparing in-hospital bleeding and cardiac event rates in 158 patients who received a selective serotonin-reuptake inhibitor and a propensity score-matched group of patients who did not. All patients were treated with a glycoprotein IIb/IIIa inhibitor and almost all received aspirin, clopidogrel and heparin.

The group concluded that selective serotonin-reuptake inhibitor use during hospitalization for an acute coronary syndrome is associated with reduced rates of recurrent ischaemia, heart failure, or cardiac enzyme elevation at the expense of increased bleeding in patients receiving maximal conventional antiplatelet medications and heparin. Clinicians should be aware of this association when treating patients with an acute coronary syndrome.

Ziegelstein R, Meuchel J, Kim T et al (2007) Selective serotonin reuptake inhibitor use by patients with acute coronary syndromes. *Am J Med* **120**: 525–30

Limited family structure and BRCA gene mutation status in single cases of breast cancer

An autosomal dominant pattern of hereditary breast cancer may be masked by small family size or transmission through males given sex-limited expression. The objective of this study was to determine if BRCA gene mutations are more prevalent among single cases of early onset breast cancer in families with limited *vs* adequate family structure than would be predicted by currently available probability models.

A total of 1543 women seen at US high-risk clinics for genetic cancer risk assessment and BRCA gene testing were enrolled in a prospective registry study between April 1997 and February 2007. Of these women, 306 had had breast cancer before they reached the age of 50 years, and had no first- or second-degree relatives with breast or ovarian cancers.

The main outcome measure was whether family structure, assessed from multigenerational pedigrees, predicts BRCA gene mutation status. Limited family structure was defined as fewer than two first- or second-degree female relatives surviving beyond the age of 45 years in either lineage.

The group found that family structure can affect the accuracy of mutation probability models. Genetic testing guidelines may need to be more inclusive for single cases of breast cancer when the family structure is limited and probability models need to be recreated using limited family history as an actual variable.

Weitzel J, Lagos V, Cullinane C et al (2007) Limited family structure and BRCA gene mutation status in single cases of breast cancer. *JAMA* **297**: 2587–95

Adalimumab induction therapy for Crohn's disease previously treated with infliximab

Adalimumab, a fully human tumour necrosis factor (TNF) antagonist, is an effective treatment for patients with Crohn's disease who are naïve to the chimeric TNF antagonist, infliximab. No anti-TNF agent has been evaluated prospectively in patients with Crohn's disease who had responded to another anti-TNF agent and then lost that response or were intolerant of the agent.

The aim of this study was to determine whether adalimumab induces remissions more frequently than placebo in adult patients with Crohn's disease who have symptoms despite infliximab therapy or who cannot take infliximab because of adverse events. A total of 325 patients with a history of Crohn's disease were randomly assigned to receive induction doses of adalimumab or placebo. The primary endpoint was induction of remission at week 4.

The study found that adalimumab induces remissions more frequently than placebo in adult patients with Crohn's disease who cannot tolerate infliximab or have symptoms despite receiving infliximab therapy.

Sandborn W, Rutgeerts P, Enns R et al (2007) Adalimumab induction therapy for Crohn disease previously treated with infliximab. *Ann Intern Med* **146**: 829–38

Oestrogen therapy and coronary artery calcification

Calcified plaque in the coronary arteries is a marker for atheromatous plaque burden and is predictive of future risk of cardiovascular events. In this study, the relationship between oestrogen therapy and coronary artery calcium was examined in the context of a randomized controlled trial.

In an ancillary substudy of the Women's Health Initiative trial of conjugated equine oestrogens as compared with placebo in women who had undergone hysterectomy, the study team performed computed tomography of the heart in 1064 women aged 50–59 years at randomization. Imaging was conducted at 28 of 40 centres after a mean of 7.4 years of treatment and 1.3 years after the trial was completed (8.7 years after randomization). Coronary artery calcium scores were measured at a central reading centre without knowledge of randomization status.

It was concluded that among women who were 50–59 years old at enrolment the calcified plaque burden in the coronary arteries after trial completion was lower in women assigned to oestrogen than in those assigned to placebo. However, oestrogen has complex biological effects and may influence the risk of cardiovascular events and other outcomes through multiple pathways.

Manson J, Allison M, Rossouw J et al (2007) Estrogen therapy and coronary-artery calcification. *N Engl J Med* **356**: 2591–602