News

Italian public smoking ban leads to fall in MI rates

Hospital admissions for myocardial infarction (MI) in people under 60 fell by 11% in the Piedmont region of Italy in the five months after the introduction of a ban on smoking in indoor public places compared with admissions for the same period in the previous year, a new study shows. Nearly all of the fall was probably due to reductions in exposure to passive smoking, the authors suggest.

In the study which was published in October (*Eur Heart J* 2006;**27**:2468-72), researchers from the University of Turin analysed all hospital admissions with discharge diagnoses of acute MI between January 2001 and June 2005 for residents throughout the region of Piedmont. The Italian Government banned smoking in all indoor public places in January 2005 and from February to June 2005, there was a significant drop in admissions for acute MI among both men and women under the age of 60, with 832 cases compared to 922 for the same months in the previous year. The researchers note that rates of acute MI had, if anything, been increasing between 2001 and 2004, so the reduction in the first half of 2005 was not attributable to long-term trends.

New cardio-renal group launched

An inaugural meeting of the newly formed Cardio-renal Group was held recently in London. The group was set up to bring together the two disciplines as a result of the increasing awareness of the co-morbidity of heart and renal disease.

Publication of the National Framework for Renal Services has highlighted the large overlap between chronic kidney disease (CKD) and cardiovascular disease (CVD). It is estimated that renal disorders are present in between 30-60% of patients with coronary artery disease and heart failure. CVD accounts for more than 50% of deaths in patients with CKD and end-stage renal disease (ESRD), and these deaths are 10-20 times higher in dialysis patients versus the general population. CVD outcomes in renal transplant recipients were reviewed by Professor Alan Jardine, (Western Infirmary, Glasgow) at the meeting, who pointed out that CVD is the major cause of late mortality in renal transplant recipients.

Systems biology

Clinicians have a tendency to treat a specific problem for each individual, whereas Professor Martin Cowie (Imperial College Medical School, London) emphasised the need for a truly holistic approach to 'systems biology' in patients with co-morbidities. A number of speakers looked at individual risk factors that may contribute to cardiac and other complications in CKD patients. Clearly hypertension is a major contributor to the development of left ventricular hypertrophy (LVH) and subsequent cardiac dysfunction in CKD. Hypertension is present in some 90% of patients reaching ESRD. Thus tight blood pressure control is indicated in all five stages of CKD.

Renal disease is also linked to dyslipidaemia and this area was reviewed by Professor Colin Baigent, (Clinical Trial Service Unit, Oxford), but the association is complex as poor nutrition in many patients may lead to low cholesterol. Although trials of lipid management are difficult to interpret in this population, it is likely that CKD patients will benefit from early use of statins. Dr David Wheeler (Royal Free Hospital, London) highlighted how coronary artery calcification, usually associated with atherosclerosis, and also mitral and aortic valve calcification, are common in CKD.

Heart failure, anaemia and CKD are intimately related. Anaemia is an adverse prognostic indicator in heart failure and contributes to exercise limitation. Dr Paul Kalra (Portsmouth Hospitals NHS Trust) reviewed the current interest in correcting anaemia with intravenous iron and/or erythropoietin. The huge advances made in treating heart failure medically and with devices were reviewed by Dr Theresa McDonagh (Royal Brompton Hospital, London). Cardiac resynchronisation therapy (CRT) involving biventricular pacing with simultaneous left and right heart pacing can lead to improvements in ventricular dysfunction and morbidity in these patients.

Poor survival

Survival on dialysis remains worse than for many cancers. Cardiac complications are due to disorders of perfusion, or structure and function (collectively termed-uraemic cardiomyopathy). This area was reviewed by Dr Chris McIntyre (Derby City General Hospital).

Glomerular filtration rate (GFR) is probably "the best measure of overall kidney function", according to a recent leaflet *Promoting good CKD management* published by the Royal College of General Practitioners, London. The widespread introduction of estimated GFR has heightened awareness of CKD, particularly in primary care. Dr Damian Fogarty (Belfast City Hospital) reviewed another important marker of renal

function, proteinuria, which is also a marker for CVD. Reducing albuminuria affords CVD protection in patients with type 2 diabetes.

Other presentations covered the assessment of cardiovascular risk in CKD with echocardiography and other modalities (Dr Raj Sharma, Ealing Hospital, London), while the pros and cons of renal and cardiac revascularisation in patients with CKD were presented through a review of cases by Dr Phil Kalra, (Salford Hospital, Manchester), Dr Nick Bellenger (Devon and Exeter Hospital) and Mr Geoff Tsang (Southampton General Hospital).

Further information

The Cardio-renal Group offers an opportunity for cardiologists, nephrologists and other related healthcare workers to debate the many important issues relating to improvements in patient care. Regular meetings are planned. For further information on these or membership, contact the meeting organisers: Paulkalra@doctors.org.uk; philip.kalra@srht.nhs.uk or H.Purcell@rbht.nhs.uk. The organisers are grateful to the Association of Renal Industries and their members and other pharmaceutical and device companies for their encouraging support of the group.

Community-based intervention shows promise

Residents from Clapham Park, an area in South London with a high incidence of heart disease, have been powerwalking (right) as one of several initiatives in a community-based intervention study, conducted by London South Bank University. Final results from the study have shown that diet and lifestyle modifications can successfully improve heart health issues and have a marked positive influence on cholesterol levels, helping to reduce the risk of cardiovascular disease (CVD).[1]

Of the participants who took part in the study, statistically significant changes in cholesterol were found following an initial 12-week health assessment. These changes were still apparent at the six-month evaluation, which showed a 25.8% increase in the number of participants attaining a desirable cholesterol level. Mean cholesterol dropped from 4.69 mmol/L (based on 110 people) at baseline to 4.16 mmol/L (based on 35 people) after six months, a 13.2% reduction.

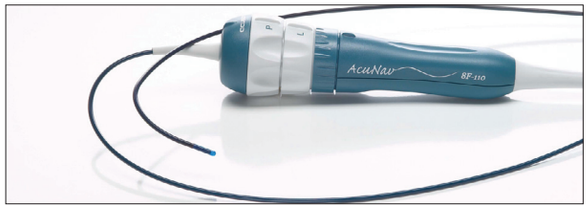
The study was based on the original Flora Fit Street programme, a joint initiative between Unilever Best Foods, the makers of Flora pro.activ products and a government regeneration scheme, the Clapham Park NDC. Managed by existing local service providers, dietitians and fitness professionals, Fit Street offered Clapham Park residents a range of intervention and prevention strategies aimed at reducing modifiable risk factors for CVD.

Professor Ann Taket, Institute of Primary Care and Public Health, London South Bank University commented: "The programme was a catalyst to better health, helping people to instigate and sustain positive diet and lifestyle changes to improve their health. This sends out signals that 'grass roots' tactics on a national level could have far reaching implications for the health of the nation".

New editorial board member

We are delighted to announce that Dr Mike Knapton, who recently joined the British Heart Foundation (BHF), has joined our editorial board. Dr Knapton is the BHF's first Director of Prevention and Care and responsible for initiating and leading programmes for people at risk or affected by heart disease.

Dr Mike Knapton



A new ultrasound catheter, reduced by a third in cross-sectional area, has been launched by Siemens. The AcuNav 8F ultrasound catheter enables improved access in all patients, particularly smaller patients, for left heart applications in electrophysiology and interventional cardiology