

In brief

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Cholesterol lowering significantly reduces stroke in the elderly

Use of cholesterol lowering drugs (statins and fibrates) is associated with a one third lower risk of stroke in older adults without previous disease, finds a study published in the *BMJ*.



A research team based in France set out to determine the association between use of lipid-lowering drugs in healthy older people and long-term risk of coronary heart disease and stroke. They tracked 7,484 men and women (average age 74 years) with no known history of vascular events, such as heart attacks and strokes, living in three French cities (Bordeaux, Dijon and Montpellier).

After an average follow-up time of nine years, the researchers found that use of statins or fibrates was associated with a one third lower risk of stroke compared with non-users. But no association was found between lipid-lowering drug use and coronary heart disease.

This is an observational study, so no definitive conclusions can be drawn about cause and effect. Nevertheless, if replicated, the study results suggest that lipid-lowering drugs might be considered for the prevention of stroke in older populations, say the researchers. Further details available at: <http://www.bmj.com/content/350/bmj.h2335>

...and cardiorespiratory fitness may delay onset of high cholesterol

Men who have higher levels of cardiorespiratory fitness may delay by up to 15 years increases in blood cholesterol levels that commonly occur with ageing, according to new research from the University of South Carolina.

"Age-related changes in cholesterol levels are usually unfavourable," said study investigator, Dr Xuemei Sui (Arnold School of Public Health, University of South Carolina, Columbia, USA). "Our study sought to determine how cardiorespiratory fitness might modify the ageing trajectory for lipid and lipoproteins in healthy men."

Dr Sui and colleagues used data from the Aerobics Center Longitudinal Study to assess levels of total cholesterol, low-density lipoprotein (LDL) cholesterol, high-density lipoprotein (HDL) cholesterol, non-HDL cholesterol and triglycerides in a total of 11,418 individuals who were observed during health examinations between 1970 and 2006 at the Cooper Clinic, Dallas, USA. Cardiorespiratory fitness was measured using a treadmill test. After cardiorespiratory fitness levels were standardised for age, subjects were placed into low, middle and high fitness categories, and cholesterol and triglycerides were analysed after an overnight fast.

Researchers found that total cholesterol, LDL cholesterol and triglycerides all increased up to a certain age and then decreased while the inverse was true for HDL cholesterol. Men with lower cardiorespiratory fitness had a higher risk of developing high cholesterol in their early 30s while men with high fitness did not see this development until their mid-40s. Additionally, men with low cardiorespiratory fitness reached abnormal HDL and non-HDL cholesterol levels around their early 20s and mid-30s, respectively, while those with higher fitness saw normal amounts for the entire lifespan.

The authors conclude that promoting cardiorespiratory fitness levels may help delay the development of dyslipidaemia. The study is published in the *Journal of the American College of Cardiology* (doi: 10.1016/j.jacc.2015.03.517).

NOAC news

Apixaban

The National Institute for Health and Care Excellence (NICE) has issued Final Appraisal Determination (FAD) recommending the NOAC (non-vitamin K oral anticoagulant) apixaban (Eliquis®) as an option for the treatment and prevention of recurrent deep vein thrombosis (DVT) and/or pulmonary embolism (PE) in adults.

The Appraisal Committee concluded that apixaban could be considered a clinically and cost-effective use of NHS resources and recommended the drug, within its marketing authorisation. The NICE FAD recommendation for apixaban, whose licensed dose is lower for the prevention of recurrent DVT and PE than for initial treatment of DVT and PE, provides clinicians with an additional oral single-drug option without the need for injectable therapy or routine monitoring of exposure.

The Scottish Medicines Consortium (SMC) has also announced that they have accepted apixaban for use within NHS Scotland.

Edoxaban

The European Committee for Medicinal Products for Human Use (CHMP) has recommended approval of the NOAC edoxaban (Lixiana®) for the prevention of stroke and systemic embolism (SE) in adult patients with non-valvular atrial fibrillation (NVAf) with one or more risk factors. The CHMP also recommended approval of edoxaban for the treatment of DVT and PE, and prevention of recurrent DVT and PE in adults.

Rivaroxaban

Results from the VENTURE-AF trial were presented recently at the Heart Rhythm Society's 36th Annual Scientific Sessions, in Boston, USA, and published simultaneously in the *European Heart Journal* (doi: 10.1093/eurheartj/ehv177).

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In this study, the NOAC rivaroxaban (Xarelto®) was investigated as an alternative to dose-adjusted vitamin K antagonists (VKAs) to reduce the risk of stroke and SE in patients with NVAf undergoing catheter ablation.

Patients with AF scheduled for catheter ablation were randomly assigned in a 1:1 ratio to rivaroxaban 20 mg orally once-daily or to dose-adjusted VKA (target INR 2.0–3.0). In patients treated with rivaroxaban, there were no thromboembolic events. In those patients receiving a VKA, two thromboembolic events occurred. There was one major bleeding event in the VKA treatment arm versus none in the rivaroxaban arm. No major bleeding events occurred in either group and the incidence of non-major bleeding events and procedure-attributable events was low for both treatment arms.

Increased MI risk in rheumatoid arthritis

Patients with rheumatoid arthritis are at increased risk of unsuspected myocardial infarction (MI), according to new research presented by Dr Adriana Puente (National Medical Centre, Mexico City, Mexico). Risk was increased even when patients had no symptoms and was independent of traditional cardiovascular risk factors such as smoking and diabetes.

Speaking at ICNC 12, a meeting organised by the Nuclear Cardiology and Cardiac CT section of the European Association of Cardiovascular Imaging, Dr Puente said: “Our study suggests that one quarter of patients with rheumatoid arthritis and no symptoms of heart disease could have a heart attack without prior warning”.

He concluded: “rheumatoid arthritis affects 1.6% of the general population. The condition

nearly doubles the risk of a heart attack but most patients never knew they had heart disease and were never alerted about their cardiovascular risk”.

No excess in heart failure with sitagliptin

Initial positive findings have been reported from TECOS (Trial Evaluating Cardiovascular Outcomes with Sitagliptin) of the DPP-4 inhibitor sitagliptin (Januvia®). TECOS was an event-driven trial conducted in adults with type 2 diabetes and a history of cardiovascular (CV) disease. The study was designed to assess the cardiovascular safety of long-term treatment with sitagliptin as part of usual diabetes care compared with usual care without sitagliptin.

The primary end point was the composite of time to the first of any of the following confirmed events: CV-related death, non-fatal myocardial infarction, non-fatal stroke, or unstable angina requiring hospitalisation. The trial achieved its primary end point of non-inferiority for the composite CV end point. Among secondary end points, there was no increase in hospitalisation for heart failure in the sitagliptin group versus placebo.

The TECOS CV safety trial was led by an independent academic research collaboration between the University of Oxford Diabetes Trials Unit and the Duke University Clinical Research Institute. Complete results will be presented at the 75th Scientific Sessions of the American Diabetes Association.

BSH Training Day

A report from the 7th British Society for Heart Failure revalidation and training day is available online at www.bjcardio.co.uk. The day included thought-provoking case-based discussions with stimulating lectures on both the latest developments in advanced heart failure care and the visions of the future in a dynamic and progressive field.

The prevalence of heart failure is expected to increase over the coming years and the meeting highlighted the challenges that will need to be overcome in terms of both advancing medical therapies and service development.

News from the UK Stroke Forum



The association between obstructive sleep apnoea (OSA) and neurovascular disease was discussed by Dr David Hargroves (British Association of Stroke Physicians Education and Training Chair) and colleagues from East Kent during a training day at the recent UK Stroke Forum conference.

Dr Hargroves presented previously published data which shows that OSA is not uncommon: 24% of men and 9% of women in the general population may have OSA, 3–4% with clinically ‘obvious’ sequelae, and 60% of older and obese people may have OSA. Clinicians treating patients with neurological presentations should have a high index of suspicion, with clinical history taking being very important, as always. Patients with excessive daytime sleepiness with an Epworth sleepiness score of more than 12 but also evidence of nocturnal sympathetic over activity (sweating, thirst, dry mouth, nocturia etc...) without day-time somnolence should be investigated and have OSA excluded with a formal sleep study, he said.

More reports from the conference can be found online at www.bjcardio.co.uk. These include reports on the association between high blood pressure, stroke and the use of glyceryl trinitrate to the management of atrial fibrillation and the prevention of stroke.