Clinical reviews

Our panel of GPs review recent research papers in their specialist areas that may influence the way you practise

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Cardiovascular disease

Lifestyle intervention reduces risk factors in older patients with coronary artery disease

Patients aged 65 years and over with coronary artery disease benefitted at least as much as younger patients in improving lifestyle risk factors in a community-based trial from the Netherlands. Older patients were more likely to achieve the weight loss target and stop smoking. Younger patients were more likely to show no improvement in lifestyle risk factors.

A total of 824 patients were recruited to the Randomised Evaluation of Secondary Prevention by Outpatient Nurse SpEcialists 2 (RESPONSE-2) trial following hospitalisation for acute coronary syndrome and/or coronary revascularisation.

Eligibility criteria included at least one of the following risk factors: BMI ≥ 27 kg/m^2; self-reported physical inactivity < 30 min of moderate intensity physical activity five times a week; current smoking or smoking cessation ≤ 6 months before hospital admission. In addition, patients had to be motivated to attend at least one lifestyle programme.

There were 245 patients aged ≥ 65 (65-84, mean 69.2 ± 3.9 years) and 579 were < 65 (32-64, mean 53.7 ± 6.6 years). Around 80% of the patients were men in both age groups. At baseline, as expected, older patients had more adverse cardiovascular risk profiles and comorbidities than younger patients.

Patients were randomised to the lifestyle intervention or usual care. Those in the intervention group were referred by nurses experienced in cardiovascular care to up to three lifestyle programmes (for weight loss, physical activity and smoking cessation). The number and sequence of programmes was determined by the patient's risk profile and preferences.

The treatment effect on lifestyle risk factors was compared in older patients (≥ 65 years) and younger patients (< 65). Results of 711 patients were analysed at 12 months' follow-up. The primary outcome was the proportion of patients with improvement at follow-up in one or more lifestyle risk factors, without deterioration in the other lifestyle risk factors, stratified by age.

There was no significant variation in the primary outcome according to age (P = 0.45 for treatment by age), odds ratio (OR) 1.67 (95% CI: 1.22-2.31).

However, older patients were more likely to achieve ≥ 5% weight loss; OR 5.58 (95% CI: 2.77-11.26) compared with younger patients OR 1.57 (95% CI: 0.98-2.49); P = 0.003.

They were also more likely to quit smoking: OR 2.28 (95% CI: 0.99-5.24) compared with younger patients OR 0.90 (95% CI: 0.60-1.34); P = 0.05. Neither group showed significant improvements in physical activity.

Younger patients were more likely to show no improvement in lifestyle risk factors: OR 0.88 (95% CI: 0.61-1.26); P = 0.01 compared with older patients OR 0.38 (95% CI: 0.22-0.67).

Lifestyle risk factors are an important target of both primary and secondary prevention interventions for cardiovascular events. Addressing such factors as obesity, physical inactivity and smoking are key in the reduction of index and recurrent coronary events.

Implementing such interventions in older patients is often more challenging as they are more likely to have comorbidities, polypharmacy and general functional decline/frailty.

Furthermore, the evidence that such interventions are effective in older patients is not as robust as that in younger patients.

The authors of this study conclude: 'Our findings suggest that despite more adverse cardiovascular risk profiles and comorbidities (among older patients), nurse-coordinated referral to a community-based lifestyle intervention was at least as successful in improving lifestyle risk factors in older compared with younger patients.'

They add that age alone should not be a reason to withhold lifestyle interventions in patients with coronary disease.

Accessible and individualised programmes are needed, particularly in this group of patients.

DR PETER SAVILL

Jepma P, Jorstad HT, Snaterse M et al. Lifestyle modification in older versus younger patients with coronary artery disease. *Heart* 2020;106:1066-72