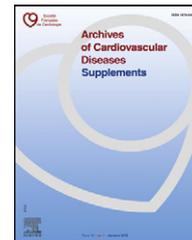




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Topic 1. Cardiovascular multimodality imaging techniques

Thursday, June 13, 2019 - 10h00–11h00

Poster n°6

Feasibility and prognostic value of vasodilator stress perfusion CMR in elderly patients > 75 years without known CAD

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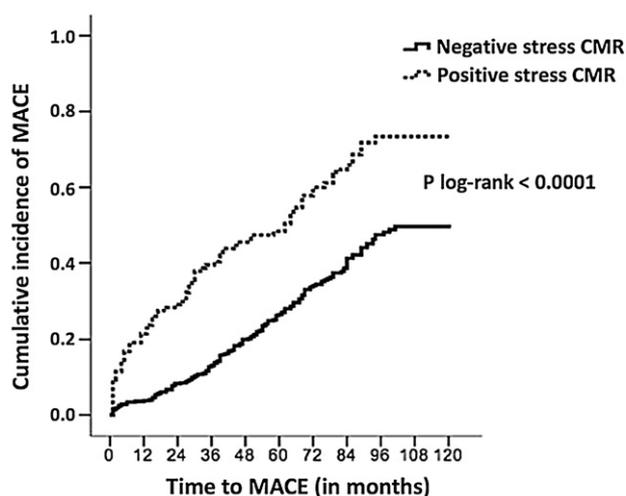
Introduction The World's ageing population raises the question of the benefit of screening for coronary artery disease (CAD) in very old patients. To assess the prognostic value of vasodilator stress perfusion cardiac magnetic resonance (CMR) in elderly patients aged > 75 years without previous known CAD.

Method Consecutive elderly patients > 75 years without known CAD referred for vasodilator stress perfusion CMR were followed for major adverse cardiovascular events (MACE) defined as cardiac death, non-fatal myocardial infarction or stroke. Univariable and multivariable Cox regressions for MACE were performed to determine the prognostic association of inducible ischemia or late gadolinium enhancement (LGE) by CMR beyond traditional clinical risk indexes.

Results Of 754 elderly high risk patients (82 ± 4 years, 48.4% men), 747 (99%) completed the CMR protocol, and among those 659 (88.2%) completed the follow-up (median follow-up 5.7 ± 2.5 years). Patients without inducible ischemia or LGE experienced a substantially lower annual rate of MACE (5.5% vs. 9.9% for those with ischemia and vs. 6.9% for those with ischemia and/or LGE). In a multivariable stepwise Cox regression including clinical characteristics and CMR indexes, the absence of inducible ischemia was an independent predictor of a lower incidence of MACE at follow-up (hazard ratio 0.46; 95% confidence interval: 0.34 to 0.62; $P < 0.001$)

(Fig. 1) and all-cause mortality (hazard ratio 0.67; 95% confidence interval: 0.45 to 0.97; $P = 0.037$). Using Kaplan-Meier analyses, the presence of myocardial ischemia identified the occurrence of future CV events ($P < 0.001$).

Conclusion Stress CMR is safe and has discriminative prognostic value in very elderly patients without known CAD, with a very low negative event rate in patients without ischemia or infarction, and with a higher rate of future CV event or death in patients with ischemia. Kaplan Meier curves (Fig. 1)



Kaplan–Meier curves describes the occurrence of MACE in elderly patients aged > 75 years with or without inducible ischemia

Fig. 1

Disclosure of interest The authors have not supplied their declaration of competing interest.

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