

severity of CAD. In patients with significant CAD, revascularisation was chosen as treatment strategy for prognostic reasons in two-thirds, as the next best strategy for relief of anginal complaints in 8% and for 'clinical reasons' in the remainder.

As was shown in the SYNTAX trial, technical aspects of revascularisation (number of lesions, lesion location and angiographic complexity) predict outcome after PCI or CABG.⁵ Our study was designed to evaluate whether hybrid SPECT/CCTA would be able to depict the complexity of CAD with enough detail to allow for a reliable treatment decision. We demonstrated an excellent agreement (92%) of panel decisions on the necessity of revascularisation. Despite unmatched SPECT and CCTA results in 41% of patients, the panel correctly appreciated the significance of CAD in these patients. Indeed, a modest agreement was found in the decision on the actual revascularisation strategy. Hybrid SPECT/CCTA was not able to depict angiographic complexity of CAD to allow for a reliable choice between PCI and CABG in patients with an indication for revascularisation. Of course, in heart teams with less experience in evaluating hybrid SPECT/CCTA images these findings will be different.

The Authors' reply, We were intrigued by the comments from Meune *et al*¹ on our article on treatment decisions based on hybrid single photon emission computed tomography (SPECT) and coronary computed tomography angiography (CCTA) for patients with stable anginal complaints.²

Prognosis and relief of anginal complaints determine the treatment strategy for each individual patient with coronary artery disease (CAD).³ In patients with high-risk CAD (two-vessel disease (VD) involving the left anterior descending, three-VD or left main disease), revascularisation is associated with better outcome compared with medical therapy.⁴ Moreover, CABG is the standard of care for patients with three-VD or left main disease.⁵ Overall, 51% of all included patients suffered significant CAD based on angiography. Of them, 37 (67%) had high-risk CAD. In all, 22% of patients with non-high-risk CAD were on dual antianginal medication. As such, despite similar baseline characteristics, the population differed from patients included in the COURAGE study with regard to

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REFERENCES

- 1 Meune C, Aïssou L, Pop N, *et al.* Non-invasive decision making in stable angina. *Heart* 2013; 99:1136.
- 2 Schaap J, de Groot JA, Nieman K, *et al.* Hybrid myocardial perfusion SPECT/CT coronary angiography and invasive coronary angiography in patients with stable angina pectoris lead to similar treatment decisions. *Heart* 2013;99:188–94.
- 3 Wijns W, Kolh P, Danchin N, *et al.* Guidelines on myocardial revascularization: the task force on myocardial revascularization of the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS). *Eur Heart J* 2010;31:2501–55.
- 4 Yusuf S, Zucker D, Peduzzi P, *et al.* Effect of coronary artery bypass graft surgery on survival: overview of 10-year results from randomised trials by the Coronary Artery Bypass Graft Surgery Trialists Collaboration. *Lancet* 1994;344:563–70.
- 5 Serruys PW, Morice MC, Kappetein AP, *et al.* Percutaneous coronary intervention versus coronary-artery bypass grafting for severe coronary artery disease. *N Engl J Med* 2009;360:961–72.