

often required and are complicated by the use of anticoagulation. Accordingly, all patients in this series underwent pericardial bioprosthetic valve replacement in the tricuspid and pulmonary positions.

Involvement of left-sided valves is rare and has been associated with the presence of an intracardiac shunt, endobronchial tumor localization, or a high tumor activity. Connolly et al. (7), in the only published series specifically focused on left-sided CHD, noted the absence of a PFO in 6 of 11 patients. Among these patients, the authors reported higher levels of 5-HIAA. We observed a PFO in one-third of patients with left-sided valve involvement. Interestingly, both patients without a PFO presented with the highest urinary 5-HIAA levels, potentially suggesting major tumor activity. In contrast to right-sided CHD, the optimal surgical approach for left-sided valvular disease remains debatable. Our experience suggests that left-sided lesions may be less advanced compared with those on the right side. In these patients with moderate left-sided valvular lesions, we elected to perform reconstructive surgery. Late echocardiography has shown only mild valvular regurgitation, indicating that in selected cases these techniques can be performed safely with good midterm results.

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## Letters to the Editor

### Usefulness of $^{99m}\text{Tc}$ -DPD Scintigraphy in Cardiac Amyloidosis

In their useful state-of-the-art paper on the evaluation and management of cardiac amyloidosis, Selvanayagam et al. (1) rightly dedicate much space to noninvasive evaluation but make no mention of a relevant imaging tool:  $^{99m}\text{Tc}$ -3,3-diphosphono-1,2-propanodicarboxylic acid ( $^{99m}\text{Tc}$ -DPD) scintigraphy. The authors do discuss radiolabeled serum amyloid P component (SAP) scintigraphy, which can provide valuable information on the distribution and extent of amyloid deposition in the body as a whole, but (as the authors point out) cannot adequately image amyloid in the heart. Unlike the SAP technique,  $^{99m}\text{Tc}$ -DPD scintigraphy is capable of imaging amyloid deposition in the myocardium of patients with transthyretin-related (TTR) amyloidosis (i.e., hereditary systemic amyloidosis and senile systemic amyloidosis) (2-5). This specific imaging characteristic may facilitate differential diagnosis between TTR and AL cardiac amyloidosis in routine practice—a clinically relevant distinction (5). Because  $^{99m}\text{Tc}$ -DPD scintigraphy is a standardized technique that uses a widely available tracer, we think that this noninvasive examination should be known to all clinicians involved in the diagnosis and management of systemic amyloidosis.

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### Reply

We welcome the interest of Drs. Rapezzi and colleagues in our article (1). We did not discuss radionuclide imaging of amyloid with tracers developed for bone scintigraphy because few data are available and because of constraints of space. Bone scintigraphy in amyloidosis has been evaluated systematically only in very small series (2), and there is no evidence as yet for a specific molecular interaction between bone-seeking isotopes and amyloid deposits. We believe that the suggestions by Dr. Rapezzi and colleagues that bone scintigraphy can facilitate the differential diagnosis of transthyretin and AL cardiac amyloidosis is therefore unsubstantiated in light of present knowledge but that further investigation of this interesting phenomenon is warranted.

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## Is Computed Tomographic Angiography Prognostic in Patients With Cardiac Symptoms?

In the September 18, 2007, issue of the *Journal*, Min et al. (1) reported the results of their registry analysis of 1,127 patients with cardiac symptoms undergoing 16-slice coronary computed tomographic angiography. Their results suggest that all-cause mortality may be predicted by the results of computed tomographic angiography and the use of a simplified coronary plaque scoring system. If replicated, this study will be viewed as an important contribution to the field of cardiology.

There is one major issue we would like to raise. A substantial number of patients had moderate to severe triple-vessel coronary artery disease. We assume most of these patients underwent

revascularization that may well have affected their 15-month all-cause mortality and confounded interpretation of the data. This was also pointed out by the editorialist, John J. Mahmarian, MD (2). In a single-center, registry trial, the revascularization procedures and outcomes should be readily obtained and reported.

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### Reply

We thank Drs. Suhar, Hitchcock, Russo, and Topol for their interest in our recent report of the prognostic value of coronary computed tomographic angiography (CCTA) for the prediction of all-cause death (1). Suhar and colleagues raise the possibility that most patients in our study population with moderate to severe triple-vessel coronary artery disease may have undergone coronary revascularization that might have affected their mortality. In response to this important question, we have further evaluated data now available to us at the primary sites from which patients were referred. Among the 106 patients with CCTA-identified moderate to severe 3-vessel coronary artery disease (defined by severe plaque in the proximal or midportions of the left anterior descending artery/diagonal branch and left circumflex artery/obtuse marginal branch and right coronary artery, or moderate to severe plaque in the left main artery), 37 underwent subsequent invasive coronary angiography, with 6 undergoing percutaneous or surgical revascularization. No significant difference existed in all-cause mortality between the small groups of patients who underwent invasive angiography or coronary revascularization and the larger number who did not (both  $p > 0.20$  in univariate analyses).

As Suhar and colleagues also correctly note, these results represent intermediate-term outcomes based upon CCTA findings from 16-slice CCTA scans, for which long-term mortality data is only just beginning to unfold (2). Our study represents the scaling of only the first of many hurdles to come. Future prognostic series examining the efficacy of current generation 64-slice CCTA plaque identification for the prediction of future adverse outcome, including major cardiovascular events other than death, are necessary at this early stage in the field. Furthermore, additional information that can be routinely gleaned from a typical CCTA examination, including plaque composition patterns (3); cardiac chamber function, volumes, and mass (4); and myocardial attenuation densities (5) should be