Commentary: To screen or not to screen? That is the question—

Stephen H. McKellar, MD, MSc

Of all the memorable lines in William Shakespeare’s *Hamlet*, perhaps the most famous one, is “To be, or not to be? That is the question.” For purposes of commenting on this article, perhaps it can be modified to “To screen, or not to screen? That is the question” and applied to this innovative preclinical study of myocardial infarction (MI) and mitral regurgitation (MR) by Kono and colleagues in this issue of the *Journal*.

In their elegant animal study, the authors attempt to answer the question whether early or late MR has a greater impact on left ventricular remodeling following MI. They induced MI in rats with coronary artery ligation and then randomized them to 1 of 3 groups: MI alone, MI + early MR, or MI + late MR. The authors observed significantly worse left ventricular remodeling in the 2 MI + MR groups compared with the MI-alone group, with no differences between the early and late MR groups. The authors conclude that MR has a strong impact on remodeling, regardless of whether it appears early or late, following MI.

This observation has important clinical implications with respect to screening for MR following MI, as it appears any modeling after posterolateral myocardial infarction. *Ann Thorac Surg*. 2011; 92:1614-20.


MR, early- or late-onset, is clinically relevant. This then begs a host of questions as to how often patients should be screened with echocardiography for the development of MR following MI. Once found, which severities of MR require intervention? Should standard quantitative indications for MR be applied in the patient after MI, or is there a role for earlier intervention, given the risk of adverse remodeling? Finally, should surgical or transcatheter repair should be used for patients who develop MR even if there isn’t concomitant pathology be corrected if early intervention is warranted?

The relationship between MR and MI has long been and continues to be an area rife with unanswered questions. Clearly, there is much we don’t know about the interaction between ischemic heart disease, MR, and reverse ventricular remodeling. This preclinical study adds insights into the temporal relationships between these entities and pushes the field toward additional questions to be studied and answered.
References

