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Myocardial Bridging in Adult and Pediatric Patients With Hypertrophic Cardiomyopathy Is Not Associated With Poor Outcome

The recent report by Sorajja et al. (1) that myocardial bridging in adults with hypertrophic cardiomyopathy (HCM) is not associated with an increased risk of sudden death is in agreement with our own study conducted in children (2), and is in contrast to the suggestion that systolic coronary compression in pediatric patients results in myocardial ischemia and a poor prognosis (3).

Unfortunately, Sorajja et al. (1) misrepresent our findings. They include our study with references that have associated myocardial bridging with “nuclear perfusion abnormalities, chest pain, ventricular tachycardia and an increased risk of sudden cardiac death.” Our conclusions were directly the opposite: we found no association between coronary bridging, symptoms, perfusion abnormalities, ventricular arrhythmias, and sudden death. Rather, in multivariate analyses, perfusion abnormalities were related to the magnitude of left ventricular hypertrophy (LVH) and the presence of septal artery compression. Unfortunately, Sorajja et al. did not evaluate angiograms for septal artery compression, and the association between bridging and severity of LVH is not assessed in patient groups of similar age. Finally, our study was conducted in a group of 57 pediatric patients, and not in only 23 as stated in the current report.

The report by Sorajja et al. emphasizes our conclusions that it is very unlikely that systolic compression of epicardial coronary arteries results in poorer outcome in HCM, and that there is currently no rationale for surgical or catheter-based correction (2). The contribution made by septal artery compression, intraventricular pressure, and LVH to perfusion abnormalities and therefore to symptoms and prognosis should be the focus of further investigation.

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REPLY

We appreciate the interest of Drs. Mohiddin and Fananapazir in our recent publication on myocardial bridging in adult patients with hypertrophic cardiomyopathy (HCM) (1). We apologize for any misrepresentation of the data from their publication on myocardial bridging in pediatric patients with HCM (2). The study published by Mohiddin et al. was included in the list of references that associated bridging with perfusion abnormalities, as their study had demonstrated such an association in *univariate* analyses. We emphasized the absence of this relation, in their study, after adjustment for other clinical variables in order to support our conclusions that bridging is not associated with an adverse prognosis.

Septal artery compression was not examined in our study. However, it is unlikely that this finding would be associated with adverse outcomes as such compression is found in nearly all patients with epicardial bridging, and there were no differences with respect to ventricular tachycardia or prognosis in the investigators' study (2). We observed no difference in maximal left ventricular wall thickness between patients with and without bridging. Finally, the study by Drs. Mohiddin and Fananapazir did examine 57 pediatric HCM patients, of whom 23 had myocardial bridging. We apologize for this typographical error.

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Embolic Complications in *Streptococcus Viridans* Endocarditis

In their editorial, entitled “Toward reducing embolic complications from endocarditis,” Drs. Homma and Grahame-Clarke indicated that the type of the organism may increase the likelihood of embolization and that *Streptococcus viridans* and *Staphylococcus aureus* endocarditis are associated with higher incidence of embolization (1). Though this is correct for *S. aureus* endocarditis, *S. viridans* endocarditis is not specifically associated with higher incidence of embolization (2,3). McLeod et al. (2), Cherubin et al. (3), and Utley et al. (4,5) found the highest incidence of emboli with fungus infection (60% to 100%), *S. aureus* (58%), and *Neisseria* (35%). *Streptococcus* species, including *viridans*, and enterococci had a lower risk of embolization (15% to 25%). In their editorial, Homma and Grahame-Clarke quoted De Castro et al. for higher embolization in *S. viridans* (6). However, De Castro et al. showed in their series that only 6 out of 22 patients with