syndrome. I strongly believe that both techniques, when used wisely, can be complementary. Nonetheless, we should not discredit nor dismiss the principles established by the father of MV repair, Alain Carpentier, in the French correction, on any account.5

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REPLY: PROGRESS VERSUS IMMORTAL TRUTH: MOTION VERSUS PARALYSIS
Reply to the Editor:
I appreciate the response of Professor García-Villarreal regarding my advocacy of restoration of normal function of the mitral valve complex in mitral valve repair. I join with him in his praise of Dr Carpentier and his status as “the father of mitral valve repair.” His many detailed descriptions of disease states and their classification are legendary and enduring contributions. After hearing his presentation of “The French Correction” at the Annual Meeting of The American Association for Thoracic Surgery in Atlanta, Georgia, in 1983, I was inspired to begin a mitral valve surgery program at Baylor College of Medicine and Houston Methodist Hospital, using his techniques.

This period was one of rapid advances in the clinical application of transthoracic then subsequently pre- and intraoperative transesophageal echocardiography. We were also early users of cardiac magnetic resonance imaging and cardiac computed tomography. These studies and the work from many other centers, including by Dr Carpentier himself, revealed to us the many postoperative changes from normal mitral function now widely described in the literature. The most important of these, which led to our abandonment of the Carpentier techniques, related to the dynamics of the left ventricular outflow tract (LVOT). The LVOT begins at the free edge of the anterior leaflet and ends at the aortic valve annulus. The anterior leaflet forms the posterior wall of the LVOT. Since normal mitral leaflet function requires marked cyclical changes in the shape and position of the mitral annulus, aortic–mitral continuity, aortic–mitral angle, and anterior leaflet morphology, the adverse effects of mitral surgery were of great relevance regarding efforts to avoid systolic anterior motion, mitral stenosis, elevated leaflet stress levels, and loss of normal vortex flow patterns and energetics.3–6 The Carpentier technique commonly is associated with high transvalvular gradients.

Use of a fully flexible annuloplasty ring sized to encompass the anterior leaflet and aortic-mitral continuity, sized to allow its systolic expansion, preserves LVOT dynamics and allows normal cyclical changes in anterior leaflet concavity and convexity. Leaflet immobility produced by leaflet resection is completely avoided by the use of polytetrafluoroethylene neochordae. In the presence of preserved LVOT function, leaflet resection was never found to be necessary for avoidance of systolic anterior motion.

Recognition that the phenomenon of diastolic mitral locking caused by atrial systole provided a reproducible point that could be simulated intraoperatively to facilitate accurate repair. A fuller discussion of these issues is presented elsewhere.5 This paper also addresses in detail our solution to the concerns of Dr García regarding accurate and reproducible use of neochordal replacement.

It was Hippocrates who stated: “There are in fact two things, science and opinion: the former begets knowledge, the latter ignorance.” Scientific progress relies on skepticism, iconoclasm, and data. Enduring recognition of the pioneering efforts of our famous predecessors does not depend on whether we still perform the exact surgeries they were able to develop with the limited knowledge of their time, but to the extent that they laid the foundations for future progress and inspired others to continue the work so vital to our patients.

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