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Reply to the Editor:

We thank Dr Tavlasoglu and coworkers for their interest in the double-orifice edge-to-edge technique and for the issues they addressed in their letter.

All of the patients included in our study had severe degenerative mitral regurgitation.¹ Therefore, patients with rheumatic, postendocarditic, ischemic, and functional mitral regurgitation were excluded. In our retrospective analysis, we were not able to establish exactly the number of patients who were affected by Barlow's disease and in how many cases, conversely, the typical features of fibroelastic deficiency were present. However, considering the characteristics of the patients who undergo mitral valve repair for pure degenerative mitral regurgitation at San Raffaele University Hospital (which have not significantly changed over the years), we can certainly state that the majority of the patients with bileaflet prolapse enrolled in our series were affected by Barlow's disease. The edgeto-edge technique was initially developed specifically to treat rapidly and effectively the most complex forms of this pathology. In our unit, where approximately 450 mitral repair procedures per year are performed, Barlow's disease was and remains one of the most important indications for the double-orifice edge-to-edge repair. Tearing of the edge-to-edge suture occurred in 1 patient included in this series, probably as a consequence of an overly superficial stitch. Indeed, particularly when redundancy of the leaflets is pronounced, an appropriate depth of the suture bite is necessary to counteract the tension on the leaflets. Provided that this technical issue is respected, suture tearing has never been a real issue in our experience. The 174 cases reported in this study represent only a small proportion of the overall number of patients treated with the double-orifice edge-to-edge repair at San Raffaele University Hospital during the last 20 years. Suture tearing or rupture has been an exceptional event, and the few cases registered mainly occurred in patients with mitral endocarditis.

Another point raised by Tavlasoglu and coworkers is that "single scallop prolapse can be repaired successfully because opposing normal scallop's marginal chordae can prevent upward displacement of the previously prolapsing scallop when E-to-E repair technique is performed. However, performing the mentioned technique in cases with both A2 and P2 prolapse may not be sufficient enough to suspend the prolapsing scallops, because there are no healthy marginal chords to suspend the combined (sutured) A2-P2 scallops."

Our opinion regarding this and other similar considerations is that, as for any surgical technique, the only way to validate the edge-to-edge repair is by means of standard outcome measures and analysis. Our clinical and echocardiographic data demonstrate excellent long-term results (up to 17.6 years) in terms of freedom from recurrence of mitral regurgitation even in bileaflet and anterior leaflet prolapse, which have traditionally been associated with less satisfactory outcomes compared with posterior leaflet prolapse. Approximately 20 years after their operation, the majority of those patients

can still enjoy the well-known benefits of a successful and durable mitral repair operation. As a matter of fact, this is probably the best proof that most of the supposed drawbacks and hypothetic risks of the edge-to-edge technique are more theoretic than practical.

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CONCERNING EARLY AND LATE RESULTS OF TRAINING IN OFF-PUMP CORONARY ARTERY BYPASS SURGERY To the Editor:

We recently read the interesting paper by Murzi and colleagues¹ in the "Cardiothoracic Surgical Education and Training" section of the *Journal*. Authors from a group with world-recognized leadership in off-pump coronary artery bypass surgery (OPCAB) compared performances of trainees with those of senior surgeons with respect to early clinical outcome and survival at a mean follow-up of approximately 5 years.

This article deserves attention for the important topic of training in surgical specialities and for some original paths of investigation, in addition to the already known large experience in systematic OPCAB of the Bristol group. We agree that multivessel OP-CAB is a safe and reproducible technique that can be diffusely adopted and we concur that teaching OPCAB to cardiothoracic trainees should be a duty. Furthermore, the analysis