PULMONARY HYPERTENSION AND MITRAL VALVE DISEASE: STILL A BEAST

Reply to the Editor:

Pulmonary hypertension (PHT) associated with valvular heart disease, especially mitral stenosis, often is reported as a major factor of morbidity and mortality during surgery for correction of left heart valve pathology. This is attested by several recent reports that differ with regard to the relative impact of different levels of pulmonary artery pressure. Coutinho and colleagues,1 from my group, previously reported that “patients with severe MR, preserved LV function and PHT had poorer long-term survival and event-free survival even after a successful surgery.” Likewise, in an article recently published in the Journal, Yang and colleagues2 found that “long-term survival after surgery for mitral valve stenosis was impaired by moderate to severe PHT,” thus suggesting that early surgery is necessary to “forestall further worsening of the pulmonary hypertension and improve long-term survival.”

By contrast, Enter and colleagues3 found that “mortality in surgery for mitral valve stenosis is unaffected by severe PHT,” thus questioning the impact of preoperative PHT in perioperative and late outcomes, although considering that “extreme PHT remains a risk factor.” As I stated in an accompanying editorial comment,4 “the work of Enter and colleagues is generally not in accordance with most articles previously published on this subject. It thus may constitute new knowledge, but we will have to wait for confirmation of these results by other investigators.”

In an editorial comment published together with the work by Yang and colleagues,5 Anyanwu4 questioned some aspects of the methodology followed by these authors. He further implied that “an observation of superior survival in patients who underwent surgery at earlier (compared with later) stage of disease reflects more the limitations of the underlying methodology rather than a definite beneficial effect of early surgery on long-term survival.” This comment prompted the letter to the Editor by Yang et al.6 published in this edition of the Journal, in which the concerns raised by Anyanwu5 appear duly addressed and the authors maintain the plea for early surgery before severe PHT occurs.

Not wanting to enter in the fundamentals and details of the discussion between these 2 articles, it seems to me that PAH in the setting of left heart valve surgery (aortic valve included) still requires a surgeon’s closest attention. As Coutinho and I7 stated in another editorial comment to Yang and colleagues’ article,2 “the presence of severe PHT usually is not a contraindication to mitral valve surgery, whether for MS or MR.” But I am still concerned when pulmonary artery pressure is nearly or suprasystemic, when additional investigation regarding the reversibility of the PHT is warranted. “Because the majority of studies have shown a greater risk of perioperative and late mortality with moderate to severe PHT, strategies to reduce pulmonary artery pressure before surgery and an early intervention approach to the mitral valve should be pursued.”7

The current guidelines on treatment of valvular heart disease from both sides of the Atlantic reflect this concern. The 2014 American Heart Association/American College of Cardiology guidelines8 recommend intervention for asymptomatic patients with mitral regurgitation when systolic pulmonary pressure is greater than 50 mm Hg. I presume that identical recommendation could be warranted for mitral stenosis.

References

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