De Martino and colleagues' present an interesting perspective in their letter, suggesting that cardiac surgeons be trained in aortic root enlargement to prepare them for surgical conundrums they will invariably face in their career. Indeed, a cardiac surgeon’s decision to perform root enlargement with aortic valve replacement (AVR) versus isolated AVR is not random, but rather based on tangible and imperceptible variables, including surgeon experience, baseline patient characteristics, and operative anatomy. Bearing this in mind, and acknowledging the lack of definitive randomized evidence on the subject, root enlargement with AVR cannot be assumed to be as safe as isolated AVR based solely on observational evidence.

In their study of 53 patients, Celiento and colleagues found enlargement of the aortic annulus with AVR to be associated with an actuarial survival of 37% at a mean follow-up of 8.9 years. Tam and colleagues reported the safe addition of aortic root enlargement with AVR to be associated with similar outcomes as isolated AVR is at best a hypothesis. Based on the current evidence, considering root enlargement with AVR to be associated with similar outcomes as isolated AVR is best a hypothesis. Although every effort must be made to avoid significant patient–prosthesis mismatch in AVR, the addition of root enlargement can lead to important complications and requires experience and careful planning. Only randomized allocation of sufficient number of patients to root enlargement with AVR and isolated AVR groups can allow equal baseline distribution of known and unknown confounders. Thus, it must be reiterated that it is only under these conditions that differences in outcomes between the groups can be attributed to true treatment effect and conclusions can be drawn. Until such evidence is available, each patient requires careful subjective and objective assessment to guide the choice of operation.

References