transposition of the great arteries (TGA). Klitsie and colleagues¹ found a reduced tricuspid annular plane systolic excursion (TAPSE) and tricuspid annular peak systolic velocity (S') in their patients with TGA relative to control subjects and found that RV systolic performance, in contrast to left ventricular systolic performance, remained significantly impaired at a medium-term follow-up of 9 months. We completely agree with the findings of Klitsie and colleagues¹ that this decrease of RV systolic performance after surgical correction of TGA may be due to detrimental effects of heart surgery with cardiopulmonary bypass. In children who have undergone heart surgery for tetralogy of Fallot and ventricular septal defect, the TAPSE and S' values have been shown to be decreased and also to worsen continuously with time.^{2,3} After the arterial switch operation, Klitsie and colleagues¹ found that the RV systolic parameters S' and TAPSE as well as diastolic parameters were impaired at 1 day postoperatively with respect to preoperative values. Furthermore, all RV performance parameters remained impaired in patients relative to control subjects 9 months postoperatively. For the convenience of *Journal* readers, we would like to mention that a comparison of their TAPSE and S' data with available TAPSE and S' normal values and z scores^{4,5} would have improved the statistical power of their analysis.

Klitsie and colleagues¹ nicely support the notion that the RV is highly susceptible to postoperative functional impairment in patients with TGA. We thank them for addressing the need for careful and systematic evaluation of the RV in patients with TGA before and after surgical correction. We hope that with more interesting studies like this from Klitsie and colleagues,¹ quantification of systolic RV function will become a routine measurement

in the follow-up of patients with TGA.

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Reply to the Editor:

We thank Koestenberger and colleagues for their comments regarding our article, "Left and right ventricular performance after arterial switch operation,"¹ in which we reported right ventricular (RV) performance to remain impaired as late as 1 year after the arterial switch operation. In light of the prognostic importance of RV performance parameters for increased risk of cardiovascular events, this persistent deterioration warrants careful follow-up and further evaluation.

Koestenberger and colleagues suggest calculation of z scores of tricuspid annular plane systolic excursion (TAPSE) and RV annular peak systolic velocity (S') to improve the statistical power of our results. Both TAPSE and RV S' have been suggested to be age related.² Thus, as noted in our article,¹ the changes described in tissue Doppler imaging parameters preoperatively and 1 day postoperatively versus 1 year postoperatively may in part be age related. This age dependence does not affect the main conclusion of our article, the persistent impairment of RV performance, because age-matched controls were used for this analysis. We agree with Koestenberger and colleagues, however, that transformation of TAPSE and RV S' from absolute values to z scores, as previously defined,^{3,4} could yield additional insights into the changes observed in RV performance after the arterial switch operation.

Calculation of preoperative z scores yielded a mean $\pm$ SD TAPSE of 0.8 ± 1.6 and RV S' of 2.3 ± 2.2 . One day postoperatively, both TAPSE and RV S' z scores had significantly declined, yielding a mean TAPSE z score of -4.7 ± 0.9 and a mean RV S' z score of -3.4 ± 1.3 . One year postoperatively, z scores had slightly recovered (TAPSE, -2.0 ± 1.6 ; RV S', -1.5 ± 1.8) but remained low.

These z score calculations present a similar trend in RV performance during medium-term follow-up after the arterial switch operation to that described in our published article. Furthermore, these results confirm that RV performance was still impaired 1 year postoperatively. Previously, impairment of RV performance after cardiothoracic surgery with cardiopulmonary bypass has been described in several other subgroups of patients with congenital heart defects.⁵ In these studies, cardiopulmonary bypass was suggested have an important detrimental effect on both short- and medium-term postoperative RV performance values after cardiothoracic

surgery in children.⁵ In our study,¹ we could not elucidate the exact mechanism of the deterioration of RV performance. As suggested by Koestenberger and colleagues, however, we hope that our findings encourage future research and routine follow-up of RV performance after correction of congenital heart defects.⁵

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DISTAL IN SITU PEDICLED (NONSKELETONIZED) INTERNAL THORACIC ARTERY GRAFT

To the Editor:

I have read with interest the report by Toeg and Rubens¹ that has recently been published, discussing the

semantics of the adjectives “pedicled,” “skeletonized,” and the Latin term “in situ,” regarding their use in the description of internal thoracic artery (ITA) harvesting and coronary grafting techniques.

It is easy to accept that the terms “skeletonized” and “nonskeletonized” appropriately reflect the degree of isolation of the ITA from the surrounding tissue of the conduit.¹ However, I can hardly agree with the statement that the pedicled graft represents an ITA conduit in which the proximal connection of the conduit to the subclavian artery is preserved, but that when it is divided, it is a free graft.¹

Actually, Kolesov and Petukhov² were the first who used a reversed left ITA (LITA) conduit (LITA transected near its origin and thus supplied by retrograde flow from the superior epigastric and musculophrenic arteries), and Kolesov even protected his author’s right (patent no. 388738–13.04.1973.) for the reversed LITA–left anterior descending (LAD) coronary artery anastomosis. We have recently reported excellent early results using the inverted LITA conduit to revascularize the LAD in carefully selected patients.³⁻⁵

In 1 patient, we used a simple and practical technique of splitting the LITA graft and using its proximal and distal parts to revascularize the LAD coronary artery bed.³ The proximal, in situ (with the origin of the ITA still “in its original place”), nonskeletonized LITA was used to revascularize the large diagonal branch in a classic fashion, and the distal, in situ (with the branching of the ITA and the superior epigastric and musculophrenic arteries still “in their original places”), nonskeletonized LITA revascularized the LAD in a retrograde fashion.³ Furthermore, we have reported a case of accidental damage of the proximal LITA during harvesting⁴ and intentionally division of the LITA near its origin to avoid all complications to which the

classically routed nonskeletonized LITA conduit would be exposed in a patient with a grossly emphysematous lung.⁵ Although in both cases,^{4,5} the proximal LITA connections were divided from the subclavian artery, according to Toeg and Rubens,¹ we should have termed them free grafts, but, obviously, they are not. Therefore, I would suggest, if anyone at all would like to change the present nomenclature, to use the term “distal in situ nonskeletonized ITA” for reversed ITA conduits, instead of “free ITA graft,” as called by Toeg and Rubens.¹

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Reply to the Editor:

We read with interest the letter of Dr Nezic, in which he disagreed with the concepts presented in our recent editorial. In fact, Dr Nezic’s arguments conclusively support the need for a determined effort to police the use of English, and in this case Latin.

We reviewed the articles that Dr Nezic’s team has published. In the