Reply to the Letter to the Editor

Reply to Ugurlucan and Tireli

Victor O. Morell*
Section of Pediatric Cardiothoracic Surgery of the Heart,
Lung and Esophageal Surgical Institute,
University of Pittsburgh Medical School,
Children’s Hospital of Pittsburgh, Pittsburgh, PA, United States

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I would like to thank Ugurlucan and Tireli for their comments on our report [1,2]. In principle I am in agreement with their belief that a standard arterial switch operation with left ventricular outflow tract resection is preferable to an aortic translocation procedure in the management of some patients with TGA with a VSD and PS. With this particular cardiac lesion it is very important to delineate the anatomy of the LVOT including the size of the pulmonary valve annulus, the morphology of the pulmonary valve, and size of the LVOT. Our patient had a hypoplastic pulmonary valve annulus with a very dysplastic pulmonary valve, which factored in the decision to proceed with aortic translocation. The cardiac arrest the patient suffered on postoperative day #3 was clearly related to a respiratory event that could have been better managed, I would have to disagree with their suggestion that it was secondary to decreased right ventricular function. At no time during the hospitalization were there any findings (clinical or echocardiographic) to suggest abnormal right ventricular function. We are convinced that the aortic translocation procedure is superior to the Rastelli repair in preserving right ventricular volume. Therefore, in the presence of TGA with VSD, PS and a hypoplastic RV, when unable to perform a standard arterial switch with LVOT resection and VSD closure, the aortic translocation technique should be the procedure of choice.

References


* Corresponding author. Address: University of Pittsburgh, Children’s Hospital of Pittsburgh, 3705 Fifth Avenue, Room 2820, Pittsburgh, PA 15213, United States. Tel.: +1 412 692 5218; fax: +1 412 692 5817.
E-mail address: victor.morell@chp.edu.

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Letter to the Editor

Interpreting MADCAP: parallelism not divergence

Eric Lim*
Department of Thoracic Surgery, Royal Brompton Hospital,
Sydney Street, London SW3 6NP, United Kingdom

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I have read with interest the paper by Gallivan and colleagues [1] on a graphical method for risk assessment. The authors are to be congratulated for deriving such an interpretable method of evaluation of risk assessment models.

I wonder if the authors might comment on a number of possible limitations and elaborate on differences in opinion with regards to the interpretation of MADCAP. According to the authors, systematic divergence of the two plots highlights discrepancies, but it can be very subjective in deciding how much overlap or deviation implies a good or bad fit.

MADCAP is well derived and intuitive, but because it is a cumulative comparison, it carries ‘memory’. In Fig. 1 of the paper, the predicted and observed plots almost overlap in the first 2500 cases and then deviate from 3000 to 7000, but later on, the plots become parallel between the cases 7000 and 9000. The deviation between the plots in the mid-risk profile section is carried forward to the latter section. Similarly, in the plot of the differences, you can have good predictions at the higher-risk end, but because of the cumulated differences in the mid-risk profile, the discrepancy is carried forward to the latter part of the plot (6% or more risk).

It is possible that a model with good predictions in low- and high-risk profile group can be penalized on the visual plots as the mid-plot divergence separates the two lines due to the cumulative derivation. If in the higher-risk group, the assessed model greatly underestimates risk, then the two plots will converge again, giving the visual impression of a good fit but carrying the opposite meaning!

Therefore, I would consider parallelism (or the lack of) as in Fig. 1 more important than divergence (actual distance apart) in the interpretation of MADCAP. Similarly, in the plot of the mean differences (Fig. 2), I would consider it more important to be horizontal than the actual distance apart. The authors commented that the ‘mortality was greater...

References


* Corresponding author. Address: University of Pittsburgh, Children’s Hospital of Pittsburgh, 3705 Fifth Avenue, Room 2820, Pittsburgh, PA 15213, United States. Tel.: +1 412 692 5218; fax: +1 412 692 5817.
E-mail address: victor.morell@chp.edu.

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