such as this depends greatly on intact hemostatic physiology, aspirin and clopidogrel had been discontinued 7 days prior to surgery in accordance with our thoracic preoperative protocol. Acute LAD stent occlusion was confirmed on emergency coronary angiography. Rescue percutaneous coronary intervention by our cardiologists was unsuccessful and the patient had a rapid demise.

Elective non-cardiac surgery has been recommended to be delayed until 6 weeks after coronary bare metal stenting [3]. The diagnostic work-up and treatment of cancer, however, cannot afford this time luxury. There is, in fact, no recommendation made by the ACC/AHA 2005 guidelines with regard to antiplatelet therapy in coronary stent patients undergoing subsequent non-cardiac surgery. Furthermore, a recent meta-analysis [4] of 14 randomized clinical trials involving over 6000 coronary stent patients found significant thrombotic rates in DES beyond 1 year compared to bare metal stents, bringing into question the ACC/AHA guidelines of dual antiplatelet therapy for 6 months for paclitaxel stents and 3 months for sirolimus stents [2]. The mechanism is thought to be the suppression of re-epithelialization and thus a long-standing, and perhaps permanent, prothrombotic nidus. With the proliferation of coronary DES implantation, this perioperative management dilemma will be increasingly common, particularly in thoracic surgical patients, who often share with coronary artery disease a common risk factor in smoking. Ultrasound-guided non-stent PCI and single antiplatelet agent should be a considered alternative [5]. Were it not for positron emission tomography taking over much of the staging diagnostics for lung cancer, there may well be even more catastrophic incidents in thoracic surgical patients who have had coronary stenting.

References


Letter to the Editor

Aortic translocation for tranposition of great arteries and left ventricular outflow tract obstruction

Murat Ugurlucan, Emin Tireli*
Department of Cardiovascular Surgery, Istanbul Medical Faculty, Istanbul University Istanbul Medical Faculty, Istanbul, Turkey

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We read with interest the manuscript entitled ‘Aortic translocation for the management of tranposition of the great arteries with a ventricular septal defect, pulmonary stenosis, and hypoplasia of the right ventricle’ by Morell and Wearden [1]. However, we believe that there are some major points that should be discussed in detail.

Morell and Wearden, in their paper, advocate the advantage of aortic translocation for the preservation of the right ventricular volume when compared with the Rastelli procedure and its modifications. It is understood from their case that the pulmonary annulus was measured to be 0.69 cm. In such a case, we believe that resection at the subpulmonic region and resection of the superior segment of the VSD and then VSD closure and conventional arterial switch operation seems to be more efficacious than aortic translocation. In standard arterial switch operation, since the pulmonary valves are preserved, this helps to aid the already hypoplastic right ventricle and its functions; although in the long term, regurgitation of the neo-aortic valve may ensue. In aortic translocation, since the pulmonary artery is directly anastomosed to the right ventricle, this adversely affects the moderately hypoplastic right ventricular functions. This may be the major cause of postoperative third day ECMO requirement after 12 h of extubation in Morell and Wearden’s case.

According to our experiences, in the neonatal period, for the patients with VSD, moderately LVOT obstruction and bicuspoid pulmonary valves, resection and arterial switch operation when the Z value of pulmonary annulus is above –3, does not lead to a significant left ventricle to aorta gradient, thus in such cases we do not prefer aortic translocation. And we believe that this is beneficial, especially in the neonatal period. According to the echocardiographic images of the authors’ case, by resection of the superior segment of the VSD, that is enlargement of the subpulmonic region by resection of the superior rim of VSD, we propose that standard arterial switch following VSD closure could easily be performed.

We performed modified Nikaidoh procedure in only one case in which the pulmonary annulus Z score was below –3 with severe LVOT obstruction. And in this patient, the modification was long segment preparation of RCA and removal of LDA from the aorta as a button and after the aortic translocation; LAD was reimplanted to the aorta [2].

We believe that, in Morell and Wearden’s case, LVOT resection and standard arterial switch would be more beneficial for the preservation of the right ventricular functions.

* Corresponding author. Tel.: +44 161 9987070; fax: +44 161 2912530.
E-mail address: surjun@doctors.org.uk (D. Chung).

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* Corresponding author. Address: Istanbul University Istanbul Medical Faculty, Department of Cardiovascular Surgery, Milli Caddesi, 34390 Capa/ Fatih, Istanbul, Turkey. Tel.: +90 212 414 20 00x326 60; fax: +90 212 534 22 32. E-mail address: emintireli@yahoo.com.
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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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Keywords: Aortic translocation; Transposition of the great arteries

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 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.

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* 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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Keywords: Risk assessment; Statistics

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