COMMENTARY

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Management of tetralogy of Fallot in South Africa

This issue of the Journal contains 2 papers on the local management of tetralogy of Fallot (TOF). The first comprehensively and frankly reviews the surgical repair of TOF in a state hospital. The detailed text is well complemented by excellent tables and figures. Particularly noteworthy is the complete (100%) early postoperative studies of the severity of pulmonary regurgitation, right ventricular outflow gradients and trans-annular plane systolic excursion (TAPSE), by transthoracic echocardiogram. Under the circumstances, the surgery itself was satisfactory.

There are important lessons for all who are considering paediatric cardiac surgery in developing countries. Presentation, and hence operations, were delayed to an older age and 40% of patients were lost to follow-up. Major limitations were encountered in the quality and quantity of intensive care, malnutrition was common and postoperative infection was frequent. There was a high incidence of hypercyanotic spells in the older patients with a relatively high frequency of polycythaemia. Almost half the early survivors were lost to follow-up. These are the challenging conditions in which surgery is performed in this environment.

I commend the author for a frank and detailed analysis. No doubt similar circumstances prevail for the repair of all paediatric congenital heart defects in developing countries. As the author states, improved management is imperative and will only be achieved by "timeous diagnosis, earlier surgery, improvement in perioperative care, prevention of nosocomial infections and improved follow-up." Sound advice. These obstacles confront all surgical teams working in this environment. It is testimony to the obvious. Paediatric cardiac surgery is not "a one surgeon show" but involves the coordinated action of a multitude of disciplines, with a complete follow-up and accurate data analysis. No component can fail without jeopardising the early and long term outlook.

With almost half of patients lost to follow-up. I am reminded of the biblical adage "forgive them Lord for they know not what they are doing. "

The second publication is a report on right ventricular outflow tract (RVOT) stenting as a palliative procedure in patients with TOF. Because of a significant operative mortality, there is no doubt interventional cardiological procedures, including RVOT stenting, have had a major beneficial effect on outcomes in the rescuing neonates and infants with TOF. However a pre-

requisite of this strategy is that patients should subsequently undergo surgical repair when stabilised, older and bigger and when the risk of open heart surgery and cardiopulmonary bypass is lower.

In the series from the Steve Biko Hospital, 37 patients had RVOT stenting. Oxygen saturation increased and the pulmonary arteries enlarged. The zero procedural mortality is commendable; less commendable is mean age of the patients (43.6 months) that is uniquely greater than that in published literature and that less than 25% of patients subsequently underwent surgical repair without their outcomes being reported. The application of expensive, limited resources to provide temporary benefit is concerning.

These reports sadly reflect the deficiencies in paediatric cardiac surgery in South Africa and hopefully will provide strong motivation for future improvement.