

EDITOR'S PAGE



Little Kids, Little Problems— Big Kids, Big Problems



David J. Moliterno, MD, FACC, *Editor-in-Chief, JACC: Cardiovascular Interventions*

You may have heard the expression I used for the title of this Editor's Page, "little kids, little problems—big kids, big problems," before. Despite several Internet search engines, I could not find its origin. Maybe it is so old or so common that no one really knows where it came from. I have heard the expression used in different contexts, sometimes meaning that if a child has untreated behavioral issues as a youngster, those problems only get bigger as the child reaches adolescence and beyond. For children with congenital heart defects, this expression takes on a different meaning, and I thought it appropriate for this issue of *JACC: Cardiovascular Interventions*. Left untreated, many congenital heart defects can become big problems. I am not suggesting that young children with congenital heart defects have "little problems," but rather that such problems can get much worse over time. I remember during my cardiovascular medicine fellowship at Parkland Hospital in Dallas several young adult patients who crossed the border from Mexico with severe cardiovascular abnormalities—untreated mitral stenosis, atrial and ventricular septal defects, pulmonic valve stenosis, and so on—and were seeking help. Sometimes it was a pregnant woman who wanted prenatal care and the baby to be delivered in a U.S. medical center, and the pregnancy-heart defect combination added a layer of complexity to the delivery care.

Since my fellowship, I have not focused very much on the treatment of patients with congenital heart disease. To be honest, before becoming Editor-in-Chief for *JACC: Cardiovascular Interventions*, I did not pay attention to where pediatric interventional cardiology papers were published. I remember when George Dangas and I co-chaired the Innovations in Intervention (*i2*) Summit during the 2010 ACC Annual Scientific Session and when Murat Tuzcu and I co-chaired the 2011 *i2* Summit, we dedicated program

slots for the pediatric interventional cardiology science—but I never followed to see where the new research reports were published. I have since noticed that some such papers are published in general pediatric cardiology journals and the remainder in interventional cardiology journals that mainly focus on adult patients. A rough estimate is that about 10% of U.S. cardiologists are specifically pediatric cardiologists (2,800 of 28,000) (1,2). Among pediatric cardiologists, about 12% self-identify as interventionalists, and this percentage is closer to 20% for adult cardiologists. My sense is that as adult structural heart disease skills, technology, and equipment have advanced over the last decade, science and practice have followed hand-in-hand, and this has favorably affected both pediatric and adult congenital heart disease interventions. I believe this will translate into more congenital heart disease papers being published in the *JACC* family of journals.

In this issue of *JACC: Cardiovascular Interventions*, we have pulled together a collection of papers from pediatric cardiologists—true heroes among us. Indeed, we had enough original research papers to exclusively focus on pediatric patients. Please read through them if you have not already. They are all impressive to me, and I will relay just a few comments here regarding 2 papers from the NCDR (National Cardiovascular Data Registry) IMPACT (Improving Pediatric and Adult Congenital Treatments) registry. In the paper by Boe et al. (3), the investigators report on 1,026 cases of balloon aortic valvuloplasty performed between 2011 and 2015 for isolated congenital aortic stenosis. Optimal or adequate results were achieved in 70% of procedures and adverse events occurred in 16%. Backes et al. (4) considered over 6,000 cases of attempted patent ductus arteriosus closure during the same interval. It is established that patent ductus arteriosus closure is among the safest congenital

heart disease interventions performed among older and larger children (and adults), so the investigators focused on the other extreme: 747 cases of infants who at the time of the procedure had a median age of <5 months and a median weight of <5 kg(!). They found that the procedure was still highly successful (>94% of cases), though significant adverse events occurred in >12% of cases (mainly arterial trauma). Both these studies provide encouraging results and impress me knowing how small, fragile, and challenging even vascular access must be. Yet, they also provide

sobering results given the adverse event rates, particularly among the youngest and smallest patients. So my hat is off to these pediatric cardiologists as they strive to help the cardiovascular problems stay little as these kids grow big.

ADDRESS FOR CORRESPONDENCE: Dr. David J. Moliterno, Department of Internal Medicine, University of Kentucky, 900 S. Limestone Avenue, 329 Wethington Building, Lexington, Kentucky 40536-0200. E-mail: Moliterno@uky.edu.

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