

From the editors

News and comments

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THIS ISSUE BRINGS US TO THE CLOSE OF OUR FOURTH year of publishing *Cardiology in the Young*. As we peruse this issue we find articles from Austria, Brazil, Australia, China, France, Hong Kong, India, Israel, Italy, Japan, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, the United States of America and Uruguay—seventeen countries and six continents. While we are pleased with our success to date in providing such an international forum for issues involving cardiology in the young as illustrated by the contents of this issue, we are by no means satisfied. A series of changes and additions will be announced throughout 1995 as we further develop and implement our strategy for meeting the ambitious goals set out in our first issue. New faces and new places will be represented, and we will bid good-bye to old friends. We invite your input and participation. We are, of course, completely dependent on your continuing support.

Back to this issue—the lead articles in this month's issue, in particular our stimulating editorial review,¹ address an issue which is still recognized as being problematic and requiring a solution.² In our opinion, the matters discussed in this issue, again notably our editorial review,¹ go a long way towards providing that solution. The issue is the most appropriate way of describing the myriad variations in origin and distribution of the coronary arteries in patients with complete transposition (concordant atrioventricular with discordant ventriculoarterial connections). It is an issue upon which we have editorialized previously.³ The problems remain despite our previous prognostications, but the approach offered now does bring significant advances. It is not perfect, but can anything ever be perfect in a lesion showing so many variations? The lack of perfection is also, probably, largely in the eye of the beholder!

The problem in describing the arrangement of the coronary arteries is based firmly upon the variation to be found in the hearts unified by their segmental connections. Almost always the coronary arteries arise from the aortic sinuses adjacent to the pulmonary trunk—but

not always from the same sinuses. And then comes, perhaps, the most important variation. The arterial trunks themselves are not always related to each other in uniform pattern. Thus, in the most common relationship found in patients with complete transposition, the aortic sinuses giving rise to the coronary arteries are usually situated in space to the right and posterior and to the left and anterior. But when the arterial trunks are directly anteroposterior in orientation, the sinuses are to the right and to the left, respectively. When the arterial trunks are side-by-side, then the sinuses are anterior and posterior. And rotation of the heart itself will alter further these spatial relationships. Any system of description which fails to recognize this marked variability in relationships is doomed to failure. The Leiden convention⁴ was designed to overcome this problem, but did so using the cryptic formulations of "Sinus #1" and "Sinus #2." Those of us facing incipient Alzheimer's disease (RHA) have major problems with codifications, irrespective of their simplicity—a point to which we will return shortly. The solution which we offered to this dilemma was to name the sinuses according to the perception of the observer standing in the non-facing sinus and looking towards the pulmonary trunk. The sinuses bearing the coronary arteries could then conveniently be described as "right-hand" and "left-hand." Even the most absent-minded of us usually retain knowledge of which are our left and right hands. This solution, nonetheless, created its own problems because, in the most common pattern seen in complete transposition, the right-hand sinus gives rise to the left coronary artery—exactly the opposite of the arrangement found in the normal heart. The editorial review in this issue now provides a much better solution to this conundrum. When the aorta is viewed from the stance of the observer in the non-facing sinus of the pulmonary trunk, then the facing sinuses of both aorta and pulmonary trunk can conveniently be labelled as right-hand and left-hand sinuses (see page 332, Figure 2). But, now, the right-hand sinus (#2) in the most common pattern seen in complete transposition gives rise to the

right coronary artery, as in the normal heart, and the left-hand sinus (#1) supports the main stem of the left coronary artery.

Is this major advance an original concept of Amato and his colleagues?¹ We think so, but we cannot be sure. Arguments still rage as to whether Damus, Stansell or Kaye first proposed the eponymous procedure for arterial correction of complete transposition.⁵⁻⁷ We first heard the suggestion of viewing the sinuses from the pulmonary trunk at our Hong Kong symposium in 1993, the concept originating as we remember from Richard Jonas. While the present editorial review was undergoing modification, we received another communication from Jacques van Son of Philadelphia proposing the self-same modification. Dr. van Son has subsequently appeared in print as co-author of a paper from the Mayo Clinic which proposes the same concept.⁸ But Dr. Amato's precedent is well established. His illustrative material, including many other excellent illustrations not included in the present review, was initially prepared for the symposium *Heart Surgery 1991* hosted by Luigi D'Alessandro in Rome. When Joe Amato selected his illustrations for D'Alessandro's book,⁹ for some reason he excluded the beautiful drawing shown on page 332. But there can be no doubt concerning its pedigree. Whether the remainder of the concept of Amato et al¹ provides the solution required by Planché² remains to be seen. The system remains too much of a code for our own pure and simple tastes, but it is appreciably simpler than anything offered before. And it does seem to work, as well as catering, as far as we can judge, for all the known and anticipated variations in coronary arterial distribution. Only time and fashion can dictate whether the entire system becomes of value. There can be no doubt, however, that viewing the aortic sinuses from the vantage point of the pulmonary trunk resolves the problem of satisfactorily describing these structures in constant fashion irrespective of their position in space.

Finally, plans are moving forward for the meeting in Tokyo in 1995, organized by Hiromi Kurosawa, with a satellite meeting to be held in Manila, organized by Edgardo Ortiz. Information can be found in this issue regarding these meetings. Plans for the *World Congress* meeting in Kobe in 1997 are in full gear as well, with an organizing meeting to be held in conjunction with the American Heart Association meeting next month in Dallas.

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