Books review

Cardiopatías congénitas. Cardiología perinatal. Segunda edición

Edited by Felipe Somoza, Bruno Marino, and Sandra Romero. Ediciones Journal, Argentina; 2016: 692 pages, 52 tables, 1268 figures, and 22 videos (available online).
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The most common congenital malformations are those affecting the heart. Until a few decades ago, cardiologists had little interest in this discipline. Fortunately, in one of the most important programs for salvaging lives in contemporary medicine, advances in pediatrics, intensive care, and cardiac surgery have allowed most affected children to survive to adulthood thanks to very costly interventions carried out in the early stages of their lives. In recent years, there has been a steady development of new diagnostic techniques and therapeutic procedures for congenital heart disease. These advances have been, and are, characterized by the fast pace at which they are introduced and their complexity, and pediatric cardiologists are constantly engaged in keeping up with the new knowledge being generated. Moreover, the patients with congenital heart disease who survive to adulthood represent an additional diagnostic and therapeutic challenge for clinical cardiologists who, up to now, have had little to do with the anatomical and functional complexity of cardiac malformations. This book, which is essentially didactic, is intended for neonatologists, perinatologists, general pediatricians and cardiologists, intensivists, cardiac surgeons, and physicians receiving training in any of these disciplines. It is a tool for consultation in which the epidemiological, morphological, and pathophysiological features of the different types of congenital heart disease and the clinical decision-making process are described in detail. It also reflects the challenges of today's pediatric cardiology, to which the book devotes special attention and a good deal of space. These include the diagnosis and therapeutic approach during the prenatal period, univentricular pathophysiology and palliative treatments, and the advances in our understanding of endothelial function in pulmonary hypertension. There are also a few brief references to the follow-up of adolescents and adults with congenital heart disease.

This 692-page book, which is divided into 46 chapters and includes an index of terms, is the second edition of a work edited by Drs. Felipe Somoza, Bruno Marino, and Sandra Romero, professionals who are regional and international authorities in the field of pediatric cardiology and neonatology. It compiles the work of several Argentine, Mexican, and Italian authors, whose aim is to share their experience in the perinatal, pediatric, and cardiology settings, from the most basic aspects to the most recent updates, all of which is expressed in clear, concise, and straightforward language. The reader will find information on all the prenatal and postnatal diseases, including how to reach a diagnosis based mainly on pathophysiology. The text describes the clinical presentation and the findings with the different diagnostic tests performed in each type of congenital cardiac malformation. The authors meant not only to reedit the first version, but to expand, improve, and update it to the year 2015. They have included 8 new chapters, with tables, illustrations, and diagnostic and therapeutic algorithms, all printed in color. The work is accompanied by 22 videos with explanations by the authors that aim to ensure a better understanding of the text.

Although the book is relatively unstructured, it can be divided into 4 basic parts. The first consists of 11 chapters devoted to epidemiological and etiological aspects of congenital heart disease, the embryonic development of the heart, signs and symptoms, and normal and pathological hemodynamic function of the fetus, neonate, and child. There are chapters focusing on important aspects such as prenatal diagnostics and persistent newborn pulmonary hypertension. Unfortunately, the chapter focusing on the epidemiology, prevalence, and incidence of congenital heart disease and the associated mortality concentrates on data from Argentina, which is surprising in a book intended to be of general interest. The remainder of this first part consists of 4 chapters dealing with the most common cardiovascular problems throughout the different stages of life: the neonatal period, prematurity, infancy and childhood, and adolescence and adulthood.

In the second part, from chapters 12 to 34, the authors provide a very thorough and detailed description of the different nosological entities, including anatomy, pathophysiology, semiology, diagnostic methods, and an extensive discussion of treatments—surgical and percutaneous—of native heart disease. It was also surprising to find so few references to the postoperative history and the follow-up of heart disease during adulthood, with a very limited description of the residual lesions, sequelae, and complications, and nearly no discussion of current indications for treatment. This gap can probably be explained by the fact that most of the authors came from the pediatric setting.

The third part, from chapters 35 to 41, deals with questions of general interest that are common to many congenital cardiac malformations in children, such as anesthesia in neonates and children, neonatal cardiovascular surgery and problems that arise during the postoperative period, and diagnostic methods. Today, anatomical and functional peculiarities can by identified by imaging techniques. The first step is an echocardiogram, the most important procedure for corroborating clinical suspicion in each and every one of our patients. It is a valuable test, into which tissue Doppler imaging and 3-dimensional echocardiography have been incorporated. In addition, radiological techniques, such as magnetic resonance imaging, constitute a progressive and important contribution. One's attention is drawn to certain chapters of the book, like those concerned with basic electrocardiography, echocardiography, chest x-ray, and hemodynamics, because they deal with aspects that are very basic and/or familiar to most cardiologists (whether their patients are children or adults). However, it is obvious that the inclusion of these chapters may broaden the spectrum of possible readers. Finally, chapters 42 to 45 offer a miscellany that covers arrhythmias, cardiomyopathies, infectious diseases, and syncope and sudden death in children, and the book ends with a chapter that is intended to serve as a practical handbook to aid professionals who are less experienced in the recognition and diagnosis of the most common types of neonatal heart disease, and in making decisions on their treatment.

An important feature is the quality of the edition, which makes reading the book enjoyable, and the extraordinary number of very high-quality illustrations it displays, including

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diagrams, echocardiographic, magnetic resonance, and computed tomography images, and angiograms, all of which are of great interest and are basic elements to aid in the understanding of the anatomical anomaly and/or functional alteration.

In short, this is a reference book with good illustrations and a carefully designed edition that is mainly intended for professionals who are completing their training in neonatal and pediatric cardiology. Although the authors refer to the fact that the field of congenital heart disease involves 2 extremes—the fetus and the adult who requires treatment or who, having been treated, requires special care—the clinical problem posed by the latter is barely mentioned.

Pastora Gallego
Servicio de Cardiología, UGC Área del Corazón, Hospital Virgen Macarena, Sevilla, Spain

E-mail address: antoniap.gallego.sspa@juntadeandalucia.es