Book Review:
Author: S. Bert Litwin, MD

By John J. Lamberti, MD

This is the second edition of Dr. S. Bert Litwin’s "Color Atlas of Congenital Heart Surgery." Dr. Litwin is a superb technical surgeon and an outstanding medical photographer. Since the beginning of his career, Dr. Litwin has photographed virtually all of his operations as a means to document the pathologic anatomy and the type of repair. Many of the photographs in this atlas are unique. The book is divided into 23 chapters, there are no references and few eponyms are utilized. The index is comprehensive, making it possible for the reader to quickly locate operative photos of a specific entity. In the brief Preface, Dr. Litwin explains his photographic techniques. In the Introduction and Techniques section, a few paragraphs are devoted to technical considerations. In this section, Dr. Litwin describes the techniques utilized for cannulation and the conduct of cardiopulmonary bypass at the Herma Heart Center in Milwaukee, Wisconsin.

The atlas does not attempt to define the history, physical findings, and diagnostic evaluation for each defect. For some diagnoses, appropriate angiograms are provided. In each case, the angiograms are superb and they fit very well with the operative photos.

The chapters are arranged by diagnosis. Similar abnormalities are clustered together which makes comparison of the anatomic pathology and the surgery quite easy. Dr. Litwin usually photographed the surface anatomy of the heart after the pericardium was opened and retracted. All students, residents, and practicing cardiothoracic surgeons will benefit from reviewing these superb photographs of the anterior surface anatomy of the heart. There is quite a difference when the reader compares the appearance of the living heart with pictures of fixed specimens from other texts. This atlas would be worthwhile if it only contained the photographs of the surface anatomy of the heart for each defect. The intracardiac repair pictures are well labeled and easily understood.

Since Dr. Litwin’s career spans more than 35 years, some of the techniques depicted are different from those utilized at the present time. For example, most surgeons do not utilize Dacron for patching the atrial septum. In this atlas, the use of Dacron or Goretex patches is quite helpful, because the contrast between the synthetic patch and the cardiac structures highlights the surgical anatomy. In this atlas, the pathology is demonstrated as it appears in “real life.” Most successful pediatric cardiovascular surgeons have spent a considerable number of hours examining specimens in cardiac registries. Studying a formalin fixed specimen can be quite useful in preparing to perform a complex surgical procedure. The photographs in this atlas are equally helpful in defining the anatomy and the surgical techniques necessary to achieve a proper repair. The photographs complement the information derived from the study of fixed specimens. Some congenital heart defects occur relatively rarely, for example, consider supravalvular mitral ring. The photographs in this atlas clearly demonstrate the anatomy and the surgical technique necessary to achieve an excellent result when resecting a supravalvular mitral ring.

Chapter 4, entitled “Endocardial Cushion Defect” is particularly useful for the student attempting to understand the various forms of an atrio-ventricular septal defect and the repair techniques that are currently in use for these defects. In some chapters, the terminology may be a bit confusing, but the photographs are never confusing.

Chapter 18 is dedicated to aortic root anomalies. The pathologic anatomy depicted in this chapter is strikingly real and the surgical techniques are clearly depicted.

In summary, this atlas is not a textbook of pediatric cardiology, nor is it a textbook of pediatric cardiac surgery. The text is limited. The pictures are marvelous. The second edition of the Color Atlas of Congenital Heart Surgery expands and updates the excellent photographic documentation found in the first edition. Now that more than half of the patients living with congenital heart disease are over the age of 18, surgeons in training must be aware of historic operations that were state of the art 20 or 30 years ago. Serious students of congenital heart surgery will benefit from reviewing the photographs of classic operations that are rarely performed today, e.g. the Waterston shunt, the classic Blalock-Taussig shunt, formalin injection of the ductus arteriosus and others.
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