

FOREWORD

Modern medicine dawned with *De Humani Corporis Fabrica*, published in 1543 by Andreas Vesalius. The accurate anatomy based on direct observation began the new era of evidence-based medicine. Although Vesalius clearly described the anatomy of the human heart, it took nearly another century before the function of the heart was clarified by William Harvey in *De Motu Cordis* in 1628.

More recently, in the past 2 centuries, modern surgeons expanded their territory from the abdominal cavity to the thoracic and intracranial spaces and, finally, the inside of the human heart. The accurate knowledge of anatomy and the clear understanding of cardiovascular and pulmonary functions brought about the golden era of cardiovascular surgery and interventional cardiology practiced by medical professionals today.

In 1966, I was introduced to pediatric cardiac surgery at Children's Memorial Hospital (now Lurie Children's Hospital) in Chicago. The team, which was gathered by Dr. Willis J. Potts (1895–1963), was in full function, and I worked closely with Dr. Farouk S. Idriss (1928–1992), who was a pioneer in congenital heart surgery. Dr. Idriss shared an interest in the anatomy of congenital heart disease with Dr. Maurice Lev (1908–1994) of the Hektoen Institute in Chicago. Dr. Lev contributed immensely, as a pathologist, in the understanding of congenital heart disease.

Dr. Idriss began collecting surgical photographs of congenital heart defects, while I enjoyed my hobby of making line drawings of operative findings. We talked about making an album of these photographs with illustrations from a surgeon's point of view. After acquiring hundreds of photographs, I left Chicago at the end of 1977, and the project was abandoned. The need for such a book of anatomy for congenital heart defects remained real to this day.

This need and my dream are realized in this *Atlas* by the impressive work of 3 doctors: a surgeon, a cardiologist, and a pathologist. This *Atlas* includes a remarkably wide range of congenital heart disease with details of anatomy and clinical information. The beautiful pictures teach us much about surgical repair over and above the pathological anatomy. Understandably, congenital heart disease includes numerous variations, and even this *Atlas* cannot give totally comprehensive coverage. Yet, this *Atlas* may very well be the most accurate photographic description of congenital heart disease ever published.

We, the community of medical professionals, should be grateful to the authors, as I believe that this *Atlas* will help countless infants, children, and young adults by guiding their doctors, both surgeons and cardiologists, toward better understanding of the anatomic details of their heart defects.

The more we learn in medicine, the more we are amazed how "fearfully and wonderfully our bodies are made" (Psalm 139:14).

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PREFACE

Congenital heart disease constitutes an important cause for morbidity and mortality in pediatrics. Interventional cardiology has made important strides over the past 2 decades, but despite this, many congenital malformations still require surgical treatment. Recent advances have made it possible to repair or palliate almost all types of congenital heart defects. This book is a pictorial illustration of congenital heart disease. The pictures in this *Atlas* represent real views as seen through the surgeon's eyes, from actual patients in the operating room. The old saying that "a picture is worth a thousand words" cannot be overemphasized.

The material was collected by one of the authors intraoperatively using a digital camera. The images were processed by computer software, and line drawings were made to clarify the anatomic and surgical details. Numbers and legends were used to mark areas of interest. We avoided the overuse of arrows because they may obscure views and, when numerous, make the pictures look overcrowded. The numbering starts from the top of the figure and continues in a clockwise direction. A brief clinical history is provided to keep the surgical procedure in context with the clinical status. Important surgical, anatomic, and pathologic points are highlighted. However, we kept the text to a minimum because this is primarily an atlas.

This book is intended for general pediatric surgeons, cardiac surgeons, pediatric cardiologists, cardiac pathologists, cardiac intensivists, and those interested in congenital heart disease. We hope this *Atlas* will complement the already existing textbooks of pediatric cardiology and cardiac surgery.

We are grateful to our patients, who are the material of this book; to our colleagues for help and encouragement; and to our families for their support and the time "sabbatical" they granted us to prepare this book.

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