

## Preface

Radiology to me is an art more than a science; an art of imaging the human body, and an art of extracting information from an image. Radiology today is a vital specialty that almost no other medical specialty can work without. Congenital anomalies and syndromes are complex subjects in all medical specialties. They require knowledge of the normal anatomy and of the embryological basis of organogenesis. The importance of recognizing a congenital malformation or an anomaly, which can be the tip of an iceberg of a more complex syndrome, is to prevent future manifestations of a syndrome if possible or to reduce its severity. Due to this concept, I had an interest in studying how to use the radiological modalities in diagnosing congenital malformations as early as possible. Although radiology offers very powerful tools for diagnosis, the basics of medicine are still the main tools to be used for diagnosis. History, observation, clinical examination, and laboratory investigations are essential elements for diagnosis, which need to be used before radiology investigations are initiated.

The idea of this book is based on a simple principle: it is to link radiology to these basic medical tools. The book is written for junior radiologists, radiology students, and doctors interested in congenital malformations and syndromes in any specialty. Each disease is represented with a definition, description, etiology, diagnostic criteria, main symptoms, and its typical diagnostic radiological features on the modern radiological modalities available today. Important clinical manifestations, rare radiological signs, gross pathological morphology, or special classifications are illustrated by using digital medical illustrations and digital photo manipulation.

Radiology is a visual science, and no matter how well-written the description of a sign, if you do not see the sign, it is usually difficult to identify it in a real situation. As a radiologist, artist, professional graphic designer, and medical illustrator, I used to collect and draw the difficult and rare signs by using digital media. Over time, a huge archive of disease signs accumulated in my computer, from where this book came into life.

When I started studying congenital diseases and their radiological features, I faced many difficulties in finding definitions of the anomalies and their descriptions. There is no clear-cut line that tells the junior radiologist which case is a specialized case and which case is a general congenital anomaly that he/she should be aware of. You can easily get caught up in details and be sidetracked when reading a big reference textbook. For example, if you want to study a case of dwarfism, you will find yourself reading about case one, which has a similarity to case two, that will refer you to case three, and so on. In this book, I tried to collect and illustrate many of the cases in which radiology plays an important diagnostic role. Moreover, I included congenital malformations that are commonly mentioned in the radiological board examinations,

or can be faced occasionally in a busy radiological department. Some of the cases included are rare and considered to be specialty-related cases, but in my opinion they are interesting to know about.

The main goal of this book is to serve as a visual guide for radiology students and doctors interested in congenital diseases. The book is not intended as a substitute for standard radiological textbooks or common reference texts. Readers who are interested in more details are kindly requested to refer to the selected references supplied or to any specialized medical textbook.

Finally, I hope this book and its illustrations serve the reader by simplifying the congenital diseases and malformations for him/her. After all, increasing the quality and precision of diagnosis is the aim of any doctor.

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