The Pediatric and Perinatal Autopsy Manual

Edited by

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Foreword

Marta Cohen and Irene Scheimberg, pediatric pathologists of international repute, have recruited a distinguished panel of authors for this book. Their assignment is to provide general pathologists with up-to-date information on perinatal and pediatric pathology. As a manual, it emphasizes techniques for examining pediatric postmortem and surgical specimens, including histopathology. But this is much more than a procedure manual. The book is brim full of current information about common and obscure pediatric disease.

Chapter by chapter, the assembled experts have laid out detailed approaches to perinatal and pediatric specimens. The descriptions of dissections are so cogent they could well be read aloud to an inexperienced prossector while he or she conducts an examination. Even experienced pediatric pathologists will find techniques and methods that they had not considered or, perhaps, not even known.

In a volume of 436 pages, the authors have wisely emphasized the approach to specific problem areas. These include immature fetuses and infants, growth restriction, excessive body growth, sudden unexpected death in early life, pediatric infectious diseases, problems related to pediatric intensive care, etc. Pertinent information is provided on pathologic anatomy, histopathology, chemistry, microbiology, and molecular genetics. An entire chapter on pediatric radiology is a feature not usually found in pathology textbooks. Still another special chapter deals with perinatal and pediatric forensic pathology.

Photographs of actual dissections provide exquisite detail that complements the text. Other color illustrations add appreciably to both the appeal and the teaching value of the book. Tables with classifications and algorithms enhance the information in each chapter. And the relatively brief reference lists are a pleasant departure from the massive multipage bibliographies found in most modern textbooks of pediatric pathology.

The value of thorough perinatal and pediatric autopsies and other pathologic examinations extends beyond providing diagnoses for the attending physicians. These examinations instruct interns, residents, nurses, other care givers, and the public at large. Most significantly, as pointed out in this book, such examinations provide definitive information for patients’ families.

While this work is intended to meet the needs of general pathologists, it will be welcomed by trainees in pediatric pathology, and will likely find an appreciative audience in every pathology department.

Don B. Singer
J. Bruce Beckwith
Preface

The Pediatric and Perinatal Autopsy Manual has been written for general pathologists that have to perform pediatric and perinatal autopsies during the course of their mainly "adult" work.

Babies and children aren’t simply “small adults.” The incidence, rarity, and peculiarity of many diseases and conditions is such that it justifies the need for a separate subspecialty of pathology addressing all conditions of unborn babies, infants, and children up to the age of 16 years. The autopsy caseload of this age group is extremely rich and varied, to the point that some cases are unique. This is down to the peculiar genetic and developmental abnormalities that characterize this period. However, the practice of pediatric and perinatal pathology is not always carried out in specialist centers where experts in this discipline are available. This is true in many countries around the world where there are few exclusively pediatric hospitals. Referral centers may be far away and it is not always possible to send these cases for specialist post mortem. In these circumstances, the pediatric and perinatal autopsies, as well as the placental examinations, are carried out by general pathologists.

The Pediatric and Perinatal Autopsy Manual is also aimed at trainee pediatric pathologists and forensic pathologists who have to perform pediatric autopsies. It is designed and written as a practical bench-book, where each chapter is written by experts in the relevant field. A key feature of the book is that chapters are organized by types of autopsy rather than by organ system. This is because we anticipated that the reader will want to find answers to practical questions posed around the complex diseases and conditions that can affect the fetus and/or the placenta, the newborn, the infant, or the child. Thus, the book begins with a detailed explanation of how to perform a pediatric post mortem. A separate chapter deals with the small and frequently macerated fetus. Other categories, such as stillbirths and intrauterine growth restriction, are also dealt with separately. Premature infants present their own problems and a chapter is devoted to the particular problems of premature babies, while intrapartum and neonatal deaths are also described separately.

No book on perinatal pathology is complete without a chapter on placental diseases and we have one that is concise and comprehensive. Infections and nutritional problems are prevalent in many countries and a chapter is dedicated to these subjects. Useful algorithms and clues to metabolic and genetic autopsies are presented. Some specific problems such as hydrops or systemic conditions requiring more detailed description have their own chapters.

Autopsies on sudden unexpected death in infancy are performed in many countries by forensic pathologists. We hope that this particular chapter, together with relevant information present in the other chapters, will be useful to them. Finally, a forensic chapter should be useful not only for forensic pathologists, but also for any pathologist encountering unexpected suspicious findings during an initially non-suspicious post mortem.

We tried to describe the most common and important conditions that may be found in a pediatric or perinatal autopsy, providing a guide to those performing these post mortems. As such, this book does not pretend to have an in-depth understanding of each condition. There are good books that cover this particular aspect. However, each chapter contains good references for the interested pathologist.

We are grateful to our colleagues and friends who agreed to co-author the 20 chapters that constitute The Pediatric and Perinatal Autopsy Manual. We are indebted to them for their skillful contribution, thoughtful advice, and enduring patience, which helped us shape the book that we initially envisioned two years ago.
Acknowledgments

To my parents, Elsa and Ramon Cohen, who as pediatricians nurtured and encouraged my love for pediatric medicine. I also dedicate the book to Roc Kaschula, my mentor during my time as a young trainee in Cape Town, South Africa, whose inspiration, careful guidance, and continuous friendship have influenced all my accomplishments.

Marta C. Cohen

To my wonderful parents Rosa and Augusto, excellent clinicians in their own fields and even better parents, and to Fernando Paradinas, whose knowledge and love of pathology inspired me to pursue this exciting career path.

Irene Scheimberg

Sincere thanks are due to our families: our spouses and children, who provided the necessary emotional support whilst deprived of invaluable family-time during weekends and holidays.