T. Yee Khong Roger D.G. Malcomson *Editors*

Keeling's Fetal and Neonatal Pathology

Fifth Edition



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ISBN 978-3-319-19206-2 ISBN 978-3-319-19207-9 (eBook) DOI 10.1007/978-3-319-19207-9

Library of Congress Control Number: 2015947612

Springer Cham Heidelberg New York Dordrecht London

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Printed on acid-free paper

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For my wife Anne, and our sons, Jonathan and Jeremy, for all their love. TYK To Karen—for unwavering support (and sustenance), come what may. To my parents, Vera and Brian—for their confidence in me.

RDGM

Foreword

It is more than 30 years (during a Pathological Society Meeting in Edinburgh) since I approached Michael Jackson, then Medical Editor at Springer, with the suggestion that a textbook of Fetal and Neonatal Pathology would be a useful addition to their list. He was a little wary at first, perhaps anticipating much overlap with another title, but, having perused the aims, objectives, and provisional contents of the proposal, became most enthusiastic. For several years, I had been conscious of the need for such a text, directed towards the general Histopathologist and trainees. It was not until I felt able to pick up any chapter where I couldn't clearly identify an author or where one pulled out (and there were both) that I felt able to approach a Publisher.

Preparing the first edition was a very steep learning curve for me. The most important lesson from that experience was that should a problem arise, go straight to the Medical Editor! The help and support I received during the process had underpinned my editorial activities ever since. Its publication was greeted by a dinner for contributors during the Pathological Society Meeting in Southampton where the dessert was a Springer-blue, book-shaped cake.

Each new edition has brought changes in chapter, subject, and authorship to accommodate advances in pathology and changes in clinical practice. The book's content has, inevitably, become more detailed over time. This, too, is appropriate as changes in the provision of pathology services has moved increasingly towards specialisation and regionalisation, such that, in the UK and many other countries, a much higher proportion of fetal and perinatal necropsies are performed by specialist pathologists to the advantage of both clinicians and parents.

The role of Editor has become easier with computerisation of the process—no more "cut and paste" (literally) of reference lists, no galley proofs to pore over and much more rapid communication with contributors. The introduction of inexpensive colour printing has facilitated production of illustrations and improved quality.

The decision to move to joint Editorship for the fourth edition was prompted by growth of knowledge and increasing specialisation even within perinatal pathology. The choice was not a difficult one, Yee and I had maintained regular contact since Oxford and our interests were complementary. I was very happy when he accepted the invitation and his suggestions for both content and authorship have worked well. It was Yee's suggestion that it was time for a fifth edition. It was his decision to retain joint Editorship and I was delighted when Roger Malcomson accepted the role. With Editors who were former trainees of mine, one in Oxford, the other in Edinburgh, I was comfortable that "my baby" was in safe hands!

This fifth edition is again appropriately different from what has gone before. I have enjoyed reading contributions as they have come in—the more for having put the blue pencil to one side. I am flattered that my name is attached to it. I am grateful for the effort put in by many contributors over the years and for the continued support, effort, and expertise of the staff at Springer.

Edinburgh 2015

Jean W. Keeling

Preface

When Dr. Keeling conceived the first edition of this book more than 30 years ago, she saw a very real need for a textbook that provided an overview of fetal and perinatal pathology. Her book concentrated on the common problems, especially where the anatomical pathology findings guided the direction of further investigations. This has not changed. The aim of this newly updated edition of Dr. Keeling's book remains to provide general guidance to practicing pathologists, particularly those who are called upon to regularly provide a perinatal pathology service.

Both of us count ourselves extremely privileged to have been Dr. Keeling's last trainees during her specialist consultant appointments in Oxford and Edinburgh and we feel most honored that she has chosen us to carry on her commission by assuming editorial responsibility for her book. We welcome several new authors who bring new concepts, ideas and knowledge, along with their authority on those chapter subjects.

The format of the book remains the same as previous editions with the first half covering general areas in perinatal pathology. The second half is based on organ systems and covers specific pathological entities, now including discussion of the relevant molecular pathology. There are several new chapters. In the 8 years since the publication of the last edition, imaging techniques have advanced rapidly and are contributing new insights into perinatal disease and its detection. The genetic and epigenetic basis of disease is much better understood while improvements in molecular testing have also permitted interrogation of many of the disorders encountered during the perinatal period. Community expectations have also changed: techniques of the autopsy have to be adapted to meet these expectations and also to meet the practical challenges in undertaking detailed fetal examinations at increasingly earlier gestations. As a further example, in the medicolegal setting, the forensic pathologist may not see sufficient fetal and neonatal deaths, while the pediatric/perinatal pathologist may be less well acquainted with the forensic aspects; communities expect that an expertly conducted necropsy, which may need to be conducted jointly, will provide answers to very high standards of documentation and proof. In whatever setting, the pathologist needs to be informed about the most appropriate and cost-effective investigations before, during, and after a meticulously performed autopsy, the last directing further testing, including the use of molecular techniques.

We sincerely hope that the reader will find this book as incisive and insightful as Dr. Keeling always has been. We are also hopeful that this 5th edition of her work will live up to and extend her professional legacy for the benefit of another generation of pathologists.

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Acknowledgements

Chapter 2: Dr. Khong wishes to acknowledge Dr. Jean Keeling's contribution from the previous edition.

Chapter 5: Owen Arthurs is supported by a National Institute for Health Research (NIHR) Clinician Scientist Fellowship award, and Neil Sebire by a NIHR Senior Investigator awards. This article presents independent work funded by the NIHR and supported by the Great Ormond Street Hospital Biomedical Research Centre. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.

Chapter 6: Dr. Flenady wishes to acknowledge Hannah Reinebrant and Susannah Leisher for systematic reviews of classification systems and causes of death, Beth McClure for advice on aspects relating to low and middle income countries, and Rohan Lourie for providing the included stillbirth scenario, and would also like to acknowledge Amber Popattia for support in compiling this chapter.

Chapter 15: Dr. Charles wishes to acknowledge the contributions of Dr. Iona Jeffrey in the 3rd edition and of Dr. Jean Keeling in the 4th Edition.

Chapter 20: Dr. Khong wishes to acknowledge Dr. Steve Gould's significant contribution as the author of this chapter from the 2nd through the 4th editions of this book.

Chapter 21: Dr. Khong wishes to acknowledge the contributions of Drs. Jean Keeling and Dick Variend to versions of this chapter published in previous editions of this book.

Chapter 25: Drs. Malcomson and Nagy wish to acknowledge the significant contribution made by Dr. Elisabeth S. Gray, former Consultant Paediatric and Perinatal Pathologist at the Aberdeen Royal Infirmary, Scotland, UK, as author of earlier versions of this chapter published in previous editions of this book.

Chapter 32: The contribution of Peter R. Millard, the original author of this chapter, is gratefully acknowledged.

Chapter 34: Drs. Kiho and Malcomson wish to thank Prof. Tony Risdon, Drs. Frances Hollingbury and Michael Biggs, as well as the relevant HM Coroners and Police Forces for their co-operation in the reproduction of images in this chapter.

Chapters 8, 10, 17: The contributions of Drs. Patricia Boyd and Jean Keeling (Chapter 8), Dr. Angela Thomas (Chapter 10), Dr. Andrew Lyon (Chapter 16) and Dr. Jean Keeling (Chapter 17) in the previous edition are acknowledged.

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