

Practical Pediatric Cardiology

Case-Based
Management of
Potential Pitfalls

Alan G. Magee
Jan Till · Anna N. Seale
Editors

 Springer

Practical Pediatric Cardiology

Alan G. Magee • Jan Till • Anna N. Seale
Editors

Practical Pediatric Cardiology

Case-Based Management of Potential Pitfalls

 Springer

Editors

Alan G. Magee
Department of Paediatric Cardiology
University Hospital Southampton
Southampton
Hampshire
UK

Anna N. Seale
Department of Paediatric Cardiology
Birmingham Children's Hospital
Birmingham
UK

Jan Till
Department of Cardiology
Royal Brompton and Harefield NHS Trust
London
UK

ISBN 978-1-4471-4182-2 ISBN 978-1-4471-4183-9 (eBook)
DOI 10.1007/978-1-4471-4183-9

Library of Congress Control Number: 2015955265

Springer London Heidelberg New York Dordrecht
© Springer-Verlag London 2016

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made.

Printed on acid-free paper

Springer-Verlag London Ltd. is part of Springer Science+Business Media (www.springer.com)

We would like to dedicate this book to the children and their parents who place their trust in us. Although we are only human, it is our duty to appraise and evaluate our experiences so that we can provide the best possible care.

Preface

In an era when most essential information about the morphology, diagnosis, management and prognosis of heart disease in children and adolescents is so easily available on the Internet, is there any longer a place for textbooks? So rapid has been the progress in almost all aspects of medicine that most books are out of date by the time they are published. The results of drug trials or the efficacy of new devices is instantly available to health professionals, patients and families as soon as they appear in one of the many journals available online. Classical teaching from traditional or reference textbooks can be found in an instant.

With this background, the publishers and editors have bravely taken on the challenge of delivering a new book devoted to ‘pifalls’ in diagnosis and management of heart disease in the young. The editors Jan Till, Alan Magee and Anna Seale are not only personal friends and current or former colleagues for whom I have the greatest respect and admiration but also relatively young paediatric cardiologists; yet, they have a wealth of experience of success and failures in the treatment of children.

They have gathered together personal reminiscences about adverse events or diagnostic challenges from clinicians working in many paediatric cardiology centres. Each of their accounts provides lessons and insights of potential value to all of us. These types of personal descriptions devoted to a single medical specialty are not easily found online. And at a time when there is so much emphasis on informed consent, duty of candour and clinical risk this is a book which should have a place on the bookshelf of all health professionals involved in cardiology. Read it, reflect on your own clinical practice and take the opportunity to learn from the experiences of others.

London, July 2015

Michael Rigby

Acknowledgements

We wish to thank all our contributors, who have worked extremely hard to make this happen, and also to Springer for commissioning the project in the first place and to our partners and colleagues who put up with us during the final stages

Contents

1	It's Enough to Make You Anxious	1
	Merlin Ranald McMillan, Jan Till, and Ferran Roses	
2	Fetal AVSD or Maybe Not?	9
	Victoria Jowett	
3	Mind the Gap	13
	Srinidhi J.V. Rao	
4	Dilated Cardiomyopathy: If You Don't Suspect, You Can't Diagnose!	19
	M. Kanagaratnam and Pavanasam Ramesh	
5	Syncope: It's All in the History	25
	Sarah Boynton and Vinay K. Bhole	
6	Chest Pain in Children: Not Always Benign	33
	Paraskevi Theocharis and Alan G. Magee	
7	Coronary Artery Imaging Is Crucial	39
	Georgia Spentzou and Benjamin G. Smith	
8	The Woes Lie Below	47
	Srinidhi J.V. Rao and Tara Bharucha	
9	When Not to Intubate Babies Receiving 100 % Oxygen	53
	Shree Vishna Rasiah	
10	A Child with a Long QT?	59
	Elena Montanes and Jan Till	
11	Breathlessness in an Ex-Prem When All Is Not What It Seems	67
	Anna N. Seale	

12	Think Outside the Chest.	73
	Srinidhi J.V. Rao	
13	The Fontan Circulation: Never Forget the Atrial Septum	77
	Gemma Penford	
14	Is This Really Bronchiolitis?	87
	Paraskevi Mikrou and Pavanasam Ramesh	
15	A Neonatal Dilemma.	95
	Shree Vishna Rasiah	
16	The Collapsing Teenager	101
	Andrew B. Ho and James P. Gnanapragasam	
17	Dilated Cardiomyopathy: Think of the Diet.	109
	David F.A. Lloyd	
18	A T-Wave Tight Spot.	117
	Luke D. Starling and Jan Till	
19	Don't Forget the Head and Neck Vessels	127
	Norah Y.S. Yap, Stephen Harden, and Tara Bharucha	
20	The Test That Gets Forgotten	137
	Michael Harris	
21	Don't Ignore Reverse Differential Cyanosis.	145
	Andrew James McArdle and Anna N. Seale	
22	Pulmonary Resistance: How Best to Measure?	149
	James Wong and Mohammed Tarique Hussain	
23	Cardiomyopathy in Infants: Look at the Rhythm, Then Look Again.	155
	Alan G. Magee	
	Index.	161

Contributors

Tara Bharucha Department of Paediatric Cardiology, University Hospital Southampton, Southampton, Hampshire, UK

Vinay K. Bhole Department of Cardiology, Birmingham Children's Hospital, Birmingham, West Midlands, UK

Sarah Boynton Department of Cardiology, Birmingham Children's Hospital, Birmingham, West Midlands, UK

M. Elena Montanes Delmás Department of Paediatric Cardiology, Royal Brompton and Harefield NHS Trust, London, UK

James P. Gnanapragasam Department of Paediatric Cardiology, Southampton General Hospital, Southampton, Hampshire, UK

Stephen Harden Department of Cardiothoracic Radiology, University Hospital Southampton, Southampton, Hampshire, UK

Michael Harris Department of Cardiology, Birmingham Children's Hospital, Birmingham, West Midlands, UK

Andrew B. Ho Department of Paediatric Cardiology, Southampton General Hospital, Southampton, Hampshire, UK

Mohammed Tarique Hussain Department of Paediatric Cardiology, Guy's and St. Thomas' Hospital, London, UK

Victoria Jowett Centre for Fetal Care, The Royal Brompton Hospital and Queen Charlotte's Hospital, London, UK

M. Kanagaratnam Paediatric Intensive Care Unit, Royal Stoke University Hospital, Stoke-on-Trent, Staffordshire, UK

David F.A. Lloyd Department of Paediatric Cardiology, Royal Brompton and Harefield NHS Trust, London, UK

Alan G. Magee Department of Paediatric Cardiology, University Hospital of Southampton NHS Foundation Trust, Southampton, UK

Andrew James McArdle Department of Paediatrics, Northwick Park Hospital, London, UK

Merlin Ranald McMillan Department of Paediatric Cardiology, Royal Brompton and Harefield NHS Trust, London, UK

Paraskevi Mikrou Paediatric Intensive Care Unit, Royal Stoke University Hospital, Stoke-on-Trent, Staffordshire, UK

Ferran Roses Paediatric Cardiology Department, Royal Brompton and Harefield NHS Trust, London, UK

Paediatric Cardiology Department, Vall d'Hebron Hospital, Barcelona, Spain

Gemma Penford Department of Cardiology, Birmingham Children's Hospital, Birmingham, West Midlands, UK

Pavanasam Ramesh Paediatric Intensive Care Unit, Royal Stoke University Hospital, Stoke-on-Trent, Staffordshire, UK

Srinidhi J.V. Rao Department of Cardiology, Birmingham Children's Hospital, Birmingham, West Midlands, UK

Shree Vishna Rasiah Department of Neonatology, Birmingham Women's Hospital NHS Foundation Trust, Birmingham, West Midlands, UK

Anna N. Seale Department of Cardiology, Birmingham Children's Hospital, Birmingham, West Midlands, UK

Benjamin G. Smith Department of Paediatric Cardiology, Royal Hospital for Sick Children, Glasgow, UK

Georgia Spentzou Department of Paediatric Cardiology, Royal Hospital for Sick Children, Glasgow, UK

Luke D. Starling Department of Paediatric Cardiology, Royal Brompton and Harefield NHS Trust, London, UK

Paraskevi Theocharis Department of Paediatric Cardiology, University Hospital of Southampton NHS Foundation Trust, Southampton, UK

Jan Till Department of Cardiology, Royal Brompton and Harefield NHS Trust, London, UK

James Wong Department of Paediatric Cardiology, Royal Brompton and Harefield NHS Trust, London, UK

Norah Y.S. Yap Department of Paediatric Cardiology, University Hospital Southampton, Southampton, Hampshire, UK