

# Foreword

Over the past 50 years, the human placenta has gradually become better understood so far as its function is concerned, and, simultaneously, pathologic features have been more clearly delineated. Some features are characteristic of certain maternal diseases, and others specify fetal conditions. But for some other features, while they are well described and their consequences are well characterized, their etiology has remained a mystery. Aspects of placental pathology leading to an understanding of perinatal problems have also been widely used in medicolegal disputes in recent years. When they adequately studied, these pathologic findings have often been useful in settling many difficult cases of perinatal mortality and of neonatal diseases, such as the cause of cerebral palsy. All of this has led to a more frequent demand for placental examination, even of "routine" deliveries, but certainly of all those leading to premature birth and of neonates that experience perinatal problems.

As the perinatal mortality has decreased substantially over the past decades, largely because of better prenatal care, modern sonographic studies, and the elimination of the common "hyaline membrane syndrome" of premature infants, attention has now been focused on understanding preeclampsia and the causes of prematurity, the major obstetric challenges remaining. But as some diseases have now become aspects of the historical past, new challenges are being created, in part through the advent of assisted reproductive technology (ART) and intracytoplasmic sperm injection (ICSI). The multiple gestations created by this technology have produced new challenges in our understanding placentation of multiples, especially the relatively common production of additional multiple offspring from the division of one or more of the transferred blastocysts. All of these features continue to make it mandatory that the detailed study of the placenta after delivery be continued.

The book before us is designed to assist the general pathologist, whose interests have usually been with neoplasms and other diseases, to get a handle on an organ that all too often is described as "mature placenta" when it reaches the pathologist's desk. Dr. Baergen endeavors

and succeeds in presenting the essential features of placental pathology to the uninitiated pathologist; she carefully lays out what is a “must-observe” aspect of each of the placental structures, and how to assess the findings in the context of normal findings. The book is easily followed, directions and diagnostic features are clearly spelled out, and suggestions for their description in diagnostic terms are provided. The book does not endeavor to be encyclopedic, but it is well illustrated – an essential aspect for the morphologist – and the essential references are provided. No doubt, this book will be a welcomed addition to the shelves of the practicing pathologist in which to find answers to the major questions sought for care by the neonatologist, to provide answers to the obstetricians and the parents, and to serve as the basis for possible medicolegal questions of the future.

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# Preface to the First Edition

The primary objective of this book is to be a concise, practical manual of placental pathology. When I began studying placental pathology I was intimidated by its complex anatomy and pathology. Although Benirschke and Kaufmann's *Pathology of the Human Placenta* was, and is, a comprehensive text, I often wished for a more basic book that would be appropriate for the neophyte in placental pathology but based on this respected volume. I hope that this book will fulfill this goal. In an effort to be true to this ideal, Kurt Benirschke graciously agreed to review and comment on every chapter – a task for which I am profoundly grateful. Furthermore, in each chapter, there are references to the Fourth Edition of *Pathology of the Human Placenta* (PHP4), which direct the reader to the corresponding discussion and references in that book.

The book is designed to be a user-friendly, practical guide, and bench manual that can be used in the grossing room as well as at the microscope. The first section discusses the approach to the placental specimen. These chapters provide suggestions on what to do, as well as when and how to do it. In Chaps. 3 and 4, there are tables of gross and microscopic lesions, respectively, which give specific figure numbers where the lesions and associated disease processes are discussed and illustrated. Inclusion of figure numbers, I believe, make the text quite usable and give quick access to the remainder of the book. As it turned out, listing figure numbers rather than chapter or subject headings, was a labor-intensive process for me as well as for the editorial and production staff at Springer. Although every attempt has been made to ensure the accuracy of the figure numbers, errors may occur. If any are noted by the reader, it would be greatly appreciated if they were communicated to us.

The second section covers detailed development and normal histology of all parts of the placenta for those wanting to learn about specific areas of the placenta. Subsequent sections discuss placental lesions, disease processes related to the placenta, neoplasms, and trophoblastic lesions. The subjects discussed in these chapters are all referenced in the tables in Chaps. 3 and 4. The last section gives an overview of the legal implications of placental examination and discusses future

Manual of Pathology of the Human Placenta

Second Edition

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2011, XIV, 544 p. 8 illus. in color., Softcover

ISBN: 978-1-4419-7493-8