Book Review

_Crib Death: Sudden Unexplained Death of Infants—The Pathologist’s Viewpoint_

Giulia Ottaviani


This concise monograph is an overview of the multiple hypotheses and confirmatory pathological findings contributing to the multifactorial causes of sudden infant death syndrome (SIDS). The book, which is essentially the product of the author’s recent PhD dissertation on the pathology of crib death, is nicely organized into logical sections on the basis of the different potential mechanisms of SIDS/crib death. The historical review of sudden unexpected infant death over the past centuries is fascinating and serves as an introduction that builds a basis for the rest of the book, which attempts to further our understanding of the disease substrate and patient vulnerability.

As this piece is written by a pathologist from the “pathologist’s viewpoint,” it is not surprising that the histopathological illustrations are beautiful and are the main strengths of this book. Detailed histological figures portray each relevant component of the cardiac conduction system during normal embryonic and fetal development, as well as postnatal normal and abnormal formation. Descriptions of accessory pathway formation use somewhat obsolete terminology; however, these are not typical causes of SIDS, and otherwise the anatomic descriptions are clear and thorough. The nervous system and autonomic nerves are also well illustrated, including the examination of the brainstem and ganglia. The author elegantly describes the methodologies for proper dissection and pathological analyses of the heart, lungs, and brain in block sections.

Anatomical findings from autopsies performed on SIDS victims revealed a variety of interesting cardiac findings, which led to the conclusion that many of these infants, after careful postmortem evaluation, actually had an explainable cause of death, such as a cardiac tumor, coronary artery anomaly, or cardiomyopathy, rather than SIDS. From a neurological standpoint, meticulous autopsies revealed abnormalities in several central nuclei, peripheral autonomic ganglia, and distinct brainstem developmental defects.

Despite our recent understanding of the role of arrhythmias due to ion channel mutations in SIDS, the book includes only a superficial discussion of congenital long-QT syndrome as one of the causes for SIDS and could have provided more current scientific information. However, because long-QT syndrome and other inherited cardiac arrhythmias (such as catecholaminergic polymorphic ventricular tachycardia and others) do not usually present with any distinct structural or pathological findings, they offer less to discuss from the pathologist’s perspective. The role of molecular postmortem analysis is just coming into limited use but will likely become an important component of the comprehensive infant autopsy evaluation.

Crib death, or SIDS, is multifactorial, and this book helps to further our understanding of the diverse causes of sudden unexplained death of infants. The pathologist can reduce the number of cases that are deemed to be SIDS by a process of elimination, with careful anatomic, histological, and biochemical analyses that attempt to identify the specific causes of deaths in infants. These postmortem findings, along with the clinical history, family history, and thorough death scene investigation, may supply a clear story of why a baby develops sudden unexplained death, eliminating the “unexplained” notation for some of these infant victims. This book should be a valuable addition to the libraries of those interested in reviewing the heterogeneous pathophysiology of crib death.

Disclosures

None.

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