
Preface

When asked by the Prussian king, “So what is new in heaven?” Friedrich Wilhelm August Argelander (1799–1875), astronomer at the University of Bonn, Germany, answered “Does his majesty already know what is old?” This second volume of *Forensic Pathology Reviews* is intended to complement rather than replace the classical textbooks of forensic pathology by providing those interested in death investigation with the state-of-the-art accounts of special topics from various fields of forensic pathology and death scene investigation.

Chapter 1 examines the medicolegal aspects of death resulting from starvation (i.e., as a result of deliberate withholding of food from infants). The author provides deep insight into how an expert opinion may be formed on the degree and duration of starvation by applying different classification systems of protein-energy malnutrition to such cases. In Chapter 2, the authors present a fundamental and detailed look at the pathological features of head injuries that are inflicted by glass bottles. The presentation of the characteristic morphological findings in such cases is complemented by relevant experimental biomechanical data and valuable guidelines for practical casework. Chapter 3 devotes attention to the current understanding of the clinical and pathological features of primary cerebral neoplasms, according to the World Health Organization’s classification scheme. In particular, the role of these unique tumors as a cause of sudden, unexpected death is emphasized. Chapter 4 concerns obesity, one of the pre-eminent health issues in the Western world. In the United States, approximately 300,000 adult deaths can be attributed annually to obesity-related complications. The authors provide the reader with an exhaustive overview concerning aspects of the obesity epidemic, definitions and measurements of obesity, and risk factors, as well as other issues relevant to the forensic pathologist, such as premature death relating to obesity, pathologies, and causes of death.

Chapter 5 takes a comprehensive look at what the pathologist may encounter when dealing with infant and early childhood asphyxial deaths. The authors point to the differential diagnosis between inflicted (homicidal) and accidental asphyxias, airway obstruction from natural causes, foreign body impaction, and sudden infant death syndrome (SIDS). In Chapters 6 and 7, highly interesting topics related to suicide are discussed. Chapter 6 deals with planned and unplanned

complex suicides. In addition to a complete literature review of research published to date, the criminological points of view in association with the forensic pathological investigation of complex suicide cases are presented. A thorough examination of the pathological features of occupation-related suicides is provided in Chapter 7. The authors elucidate in detail the problems that may arise in the medicolegal interpretation of occupation-related suicides and provide practical guidelines for comprehensive and conclusive forensic casework.

Chapter 8 covers the subject of viral myocarditis in forensic autopsy cases. Cases of sudden, unexpected death represent a substantial proportion of forensic autopsy cases, and postmortem studies suggest that myocarditis accounts for up to 20% of all such cases. The diagnosis of viral myocarditis may present difficulties when solely based on conventional histological findings. The authors provide the reader with a survey of the latest immunohistochemical and molecular-pathological techniques that are appropriate to prove lethal myocarditis in cases with a high index of suspicion of an underlying viral myocarditis, but are not supported by traditional histological findings.

Chapter 9 comprehensively examines some curious phenomena that may occasionally be observed at a scene of death (e.g., hiding, covering, and undressing). Such phenomena generally appear dubious at first sight and may raise suspicion of a crime, even by experienced observers. These behavioral patterns that take place in agony, when the conscious, rational control of thoughts is fading, and the associated behaviors, are elucidated in detail. The knowledge of these peculiar behavioral patterns is most useful to all those involved in death scene investigation in order to correctly interpret the scene and to exclude involvement of a third party.

Chapter 10 addresses the subject of forensic entomology. A thorough understanding of the numerous ways in which arthropod evidence can be applied not only to the determination of the postmortem interval, but also to the proof of neglect of elderly or children, is essential for every forensic pathologist and medical examiner, respectively. Chapter 11 deals with the interpretation of toxicological findings in the setting of an entire death investigation, including a comprehensive presentation of potential pitfalls in toxicology testing that are always of concern.

In Chapter 12, thorough information about long-term effects of anabolic-androgenic-steroid abuse and the associated pathological findings is provided. Since recent studies suggest that 3–12% of male adolescents and about 1–2% of female adolescents use anabolic-androgenic-steroids at some time during their lives, this issue is of considerable importance to everyone involved in medicolegal investigations. Chapter 13 devotes attention to the autopsy findings of

subendocardial hemorrhages. The author gives a detailed review of the latest literature with special reference to the underlying pathophysiological mechanisms and the significance of subendocardial hemorrhages in forensic autopsy practice as a vital reaction.

This book is the result of many experts in forensic pathology coming together to share their expertise. I wish to express my deepest gratitude to all of the contributors for making their practical and scientific knowledge accessible to a broad international readership.

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