

BOOK REVIEW

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Review of: *Forensic Pathology* (2nd edition)

REFERENCE: DiMaio VJ, DiMaio D. *Forensic pathology* (2nd edition). CRC Press, Boca Raton, FL, 2003, 565 pp.

This is the second edition of a general forensic pathology book, first published in 1989 and now updated in this 2003 edition. The book has 62 additional pages compared with the original edition. There are two additional chapters entitled "Nursing Home Deaths" and "Sudden Death During or Immediately after a Violent Struggle." The latter topic was covered briefly in the first edition, but now has its own chapter. The Table of Contents in this new edition has been expanded to help narrow the search for a specific topic. Eleven color photographs have been added to the original 8 color photographs in the first edition, although they are $2\frac{3}{8} \times 1\frac{1}{2}$ in. compared to the original $2\frac{7}{8} \times 4\frac{1}{2}$ in. size. The same high quality black and white photographs remain in the second edition. Some of the photographs have identifying autopsy numbers and I would recommend that the publisher remove them in any future editions. Some of the diagrams (such as Fig. 6.16) appear hand drawn and would benefit from the expertise of a professional anatomic artist.

Chapter 1 is entitled "Medicolegal Investigative Systems" and defines death, discusses the differences among cause, manner and mechanism of death, and highlights the differences between coroner and medical examiner death investigation systems. The authors discuss the operation of a medical examiner office and finally ends the chapter with a brief discussion of office accreditation by the National Association of Medical Examiners (NAME). This is new to this latest edition.

Chapter 2 discusses "Time of Death," running through the various inaccurate methods of determining the postmortem interval beginning with livor and rigor mortis and ending with scene markers. In this section, the authors describe the instantaneous appearance of rigor mortis after death known as cadaveric spasm. The authors' proof of this phenomenon of cadaveric spasm is a brief anecdotal tale of a razor wielding man shot by his wife. The overuse of anecdotes or personal communications, rather than peer-reviewed articles, is a common flaw in forensic pathology textbooks and not restricted to this book but also found in the competing general forensic pathology textbooks *Forensic Pathology* authored by Dr. Bernard Knight and *Handbook of Medicolegal Investigation* edited and authored by Dr. Werner Spitz. In this chapter, the authors of *Forensic Pathology* expound on body temperature, vitreous fluid chemistry,

gastric contents, and entomology as methods for determining when a person died. The authors discuss postmortem changes such as decomposition, mummification, and adipocere. New to this chapter is a short paragraph on the use of flow-cytometry in determining the postmortem interval.

Chapter 3 is about "Deaths Due to Natural Disease" with the majority of the text concentrating on deaths from cardiovascular, central nervous system and respiratory causes. The authors do a good job of briefly discussing the various cardiovascular causes of death such as the myocardial bridging. The section on cardiomyopathies would benefit with the addition of arrhythmogenic right ventricular cardiomyopathy or right ventricular dysplasia. The authors also write "Probably the most common cause of dilated cardiomyopathy in America is chronic alcohol abuse" with this statement highlighted in italics in the book. Again, this provocative statement may or may not be correct, but no peer-reviewed article or reference accompanies this statement. This is repeated in the chapter in a discussion of ruptured berry aneurysms when the authors write in italics "Death is due to generalized vasospasm triggered by the subarachnoid hemorrhage, with resultant ischemic injury to the brain." Again, this statement is not supported by a reference. The coronary artery anomalies section would benefit from additional discussion of acute angulation of the coronary arteries, another overlooked cause of sudden death in young adults. Finally, the long QT interval syndrome discussion should be expanded in future editions to include the molecular basis of the disorder and elaborate on the large number of medications associated with the syndrome such as erythromycin, the new non-sedating antihistamines, and many of the anti-psychotic medications used in treating schizophrenia. This chapter has changed little from the first edition.

Chapters 4, 5, and 6 discuss blunt injuries with Chapter 4 covering the basics, Chapter 5 involving the trunk and extremities, and Chapter 6 focusing on the skull and brain. Chapter 4 has added a discussion of facial fractures and their classification. Chapter 5 includes a new section on commotion cordis. Chapter 6 has added or expanded discussions on occipito-cervical injuries, brain-stem lacerations, traumatic intracranial aneurysms, and cerebral palsy. The discussion of cerebral palsy appears out-of-place in this chapter.

Chapter 7 discusses sharp force injury and is improved by a diagram outlining the "anatomy" of a knife and by the additional references found at the end of the chapter. The photographs and examples in the chapter are excellent. Chapter 8 concerns

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asphyxiation and has minor changes compared to the first edition with slightly expanded discussions of judicial hanging and iatrogenic neck injuries due to resuscitative intubation. Chapter 9 covers motor vehicle fatalities with new coverage of seat belt and air bag injuries, motor vehicle fires, and sensing diagnostic modules. Chapter 10 on airplane crashes has been expanded (2.5 more pages) and better organized than in the first edition.

Chapter 11 explores the issue of sudden infant death syndrome (SIDS) and is better organized, but otherwise unchanged from the first edition. Chapter 12 addresses neonaticide, infanticide, and child homicide and again, while some statements are well referenced, others are not. The authors, for example, write "Deaths caused by smothering tend to be missed in large urban communities with high crime rates, where both the medical examiner's office and police agencies are overworked and cannot afford to expend the time on detailed investigations of all cases" yet the authors state two paragraphs earlier that the "autopsy findings [in smothering] are essentially unremarkable, the same as those found in SIDS deaths." Failure to detect homicidal smothering has nothing to do with overworked medical examiners or police. Homicidal smothering looks just like SIDS and no one can differentiate between the two unless the assailant speaks of what they did or more than one child dies within the family. The two most notorious cases of "missed" serial homicidal smothering came from the rural communities in upstate New York. In another example from this chapter, to bolster their contention that CPR does not cause injuries that would be confused with an assault, the authors write "One of the authors (DJD) examined the bodies of 123 children who had cardiopulmonary resuscitation. None showed the multiple abrasions and contusions about the face and neck that are seen in children beaten about the face." The use of an unreferenced study should be condemned. If this study has been published, then include the reference. Finally, the authors use five pages to condemn shaken baby syndrome rather than two in the first edition.

Chapter 13 discusses fire deaths and, like other chapters in this new edition, has benefited from the addition of subheadings within the chapter. This makes the chapter better organized and easier to

read and reference. This chapter has an additional discussion on flash fires and flashover briefly discussed in the first edition. Chapters 14, 15, 16 cover carbon monoxide poisoning, drowning, and electrocution, respectively. Little has changed in these chapters except for the addition of subheadings and better organization. The chapter on hyperthermia and hypothermia (Chapter 17) has been expanded both in text and references. Chapter 18 reviews the forensic examination of rape and has an expanded and more current discussion of applicable DNA analysis. Chapters 19 and 20 discuss emboli and miscellaneous topics, respectively. Blast injuries and intra-operative deaths have been added to the latter chapter since the first edition.

Chapter 21 involves nursing home deaths and begins with a number of anecdotal and unreferenced statements regarding drug overdoses and accidental deaths in nursing homes. A paragraph enumerating the types of accidental deaths ends with the unreferenced statement "It is not uncommon for the NH [nursing home] staff to attempt to conceal a fatal accident." Better documentation is found in the discussions of malnutrition and decubitus ulcers later in the chapter. Chapter 22 is a good discussion of the various causes (and theories) of sudden death after a violent struggle, often while in police custody. This chapter examines excited delirium, positional asphyxia, and pepper spray. Chapter 23 covers interpretive toxicology emphasizing specimen collection and analysis as well as groups of drugs, including the alcohols. This chapter is ten pages shorter than the same chapter in the first edition because the large table (23.2) with therapeutic, toxic, and fatal blood concentrations of drugs has been re-oriented and made more readable. Finally, the appendix regarding the forensic autopsy and its components remains the same.

In conclusion, *Forensic Pathology* is a compact, easily read, overview of forensic pathology that will find an audience among non-pathologists and pathologists in training. The authors have done well to augment the number of referenced articles in each chapter since the first edition, but many statements in *Forensic Pathology* are still based on anecdotes, unpublished "studies," and unreferenced opinions and should be read with a critical eye. The search for an authoritative text on forensic pathology continues.