
Preface

A 2003 editorial in the well-renowned journal *Science* was entitled “Forensic Science: Oxymoron?.” An oxymoron is a rhetorical figure in which an epigrammatic effect is created by the conjunction of incongruous or contradictory terms. This short article questioned both the reliability and validity of forensic sciences, alleging a lack of such criteria as error rate, adequate testing, regular standards and techniques, as well as a general lack of acceptance within the field. The will of those involved in death investigation was also questioned, calling for an improvement in the quality of their work in a scientific setting by noticing “Both these public interests—security and justice—would be furthered by a more scientific and reliable technology for analyzing crimes. The mystery here is why the practitioners don’t seem to want it!”

From this editor’s point of view it is generally impossible to quantify the pain of tortured victims and, without a doubt, the violation of human rights cannot be measured by biostatistical methods. However, police investigators and forensic pathologists have evidenced and documented ethnic cleansing in war zones and thus testified against war criminals in order to continually protect human rights over the past decade. Physical evidence of torture is properly analyzed where based in a scientific setting. Following regular standards and techniques for the identification of human remains, forensic pathologists and anthropologists are able to identify those who are killed by terroristic acts as opposed to civilian deaths. The components of weapons of mass destructions are analyzed by means of modern forensic science techniques. A harmonization of autopsy rules has gained worldwide popularity, providing highly scientific international standards. However, it is probably relatively easy to doubt the methods used in forensic death investigation when one has no insight into real forensic casework. But to doubt the will of those practitioners doing the field work is beyond any serious discussion.

One year after the appearance of the first volume of *Forensic Pathology Reviews*, this series has gained considerable attention within the forensic and medicolegal scientific community worldwide, which is, among other things, reflected in the efforts of 25 researchers from nine different nations representing four continents who have contributed to this third volume of the series. Most of the authors are *the* leading authorities in their particular fields of research. The

chapters in this volume, once again, provide the reader with a profound scientific and practical knowledge on a broad variety of different topics.

Chapter 1 gives the reader a thorough insight into the medicolegal investigation of bodies found in water, focusing not only on victim identification, evaluation of postmortem submersion time, and determination of the cause and manner of death, but also in depth analysis of the pathophysiology of drowning. Chapter 2 devotes attention to human immunodeficiency virus (HIV)-1 infection of the central nervous system in the forensic pathological setting. The forensic pathologist is frequently confronted with HIV-1 infection, especially in the context of drug abuse. In particular, the sampling of specimens for histological examination during autopsy, the neuropathological examination, and the related findings of diagnostic relevance, including the macroscopic and microscopic appearance of opportunistic infections, cerebrovascular complications, and neoplasms associated with the disease, are emphasized. Chapter 3 deals with rare events such as deaths in a head-down position, which most often occur accidentally. The author examines the phenomenology and pathological features of such fatalities, providing new insight into the pathophysiology of inverse body position based on human and animal experiments under true and simulated microgravitational conditions.

Chapter 4 deals with forensic bitemark analysis, giving a comprehensive outlook on promising new areas of research in this field (e.g., the retention of DNA on skin over time and the newly described bacterial fingerprinting technique).

Chapters 5 and 6 are devoted to taphonomic changes of human bodies and their remains, namely the underlying biological processes and resultant postmortem changes that a corpse undergoes during the early postmortem interval. The broad range of variables influencing the morphological picture under which distinctive postmortem changes present, as well as elaborate findings that can serve as a basis for the macromorphological exclusion of a forensically relevant lay time of soil-embedded skeletal remains are provided.

Chapter 7 concerns arrhythmogenic ventricular dysplasia, a disease that plays a significant role that should not be underestimated in daily forensic pathological autopsy practice in cases of sudden death. The illness can lead to lethal cardiac arrhythmia and usually manifests during the third decade of life. Interestingly, regionally higher frequencies of the illness in some countries at least suggest a genetic disposition to the disease. Chapter 8 concerns the postmortem diagnosis of death in anaphylaxis. The authors provide the reader with an up-to-date overview concerning morphological, biochemical, and

immunological investigations toward the diagnosis of anaphylaxis and give helpful guidelines for practical casework.

Chapter 9 takes a comprehensive look at gross, microscopical, and genetic findings in the forensic pathological evaluation of fatal pulmonary thromboembolism and the potentially involved medicolegal issues. Chapters 10 and 11 cover aspects of suicide. A profound look at the trends of suicide in the United States during the twentieth century is given in Chapter 10. These trends have altered drastically, especially within the past century and most specifically in the United States. Chapter 11 addresses problems that may arise in the medicolegal investigation of murder–suicides, uncommon events that require careful investigation.

Chapter 12 deals with the investigation of iatrogenic deaths that constitute a substantial forensic contribution to injury prevention, medical audit, and continuing improvement in health care. Iatrogenic injuries such as perioperative hemorrhage, sepsis, trauma, embolic phenomena, cardiovascular and cerebrovascular events, complications associated with anesthesia, interventional radiology and radiotherapy, as well as adverse drug events and reactions are considered in detail. In Chapter 13, thorough information about the use of radiology in medicolegal investigations (e.g., for the location of foreign bodies within the body, documentation of mechanical injuries, identification purposes, or elucidation of child abuse) is provided.

Again, I owe great thanks to my contributors for making their practical and scientific knowledge available.

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