

An Atlas of
Forensic Pathology

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Forensic Pathology

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Library of Congress Cataloging-in-Publication Data

Wetli, Charles V.

Forensic pathology : a descriptive atlas of the latter twentieth century / Charles V. Wetli, Roger E. Mittleman, Valerie J. Rao.

p. cm

Includes bibliographical references.

ISBN 0-89189-430-6

1. Forensic pathology—Atlases. I. Mittleman, Roger E. II. Rao, Valerie J. III. Title.

[DNLM: 1. Forensic Medicine atlases.

W 639 W539f 1999]

RA1053.4.W48 1999

614'.1—dc21

99-52752

CIP



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03 02 01 00 99 5 4 3 2 1

Printed in the United States of America

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Because forensic pathology is among the smallest of medical specialties, medicolegal autopsies are often performed by general hospital pathologists, particularly in coroner jurisdictions. Unfortunately, autopsy procedures employed by hospital pathologists generally are inadequate for medicolegal situations. In large part, this is because the purposes and goals of general and forensic cases are quite different (Table 1). In particular, the general hospital autopsy is oriented toward clinical correlation, comparisons with the medical record, and extensive histologic assessment. In medicolegal autopsies, there is frequently no clinical record and correlations are frequently made with the terminal event and scene of death. Greater reliance is therefore placed on the external examination and documentation of injuries and postmortem changes, with histologic evaluation being somewhat limited (except in cases of sudden natural deaths or the presence of associated disease processes in unnatural deaths).

Photographs and diagrams are of paramount importance in documenting both external and internal abnormalities. Since interpretation of the various injuries may change as more information is received, it is important that the final report be an objective document with little interpretive content and no conclusions. This is particularly important for pathologists who are relatively inexperienced in medicolegal autopsies. Documentation becomes more important than interpretation in such circumstances. Good, objective descriptions, photographs, and diagrams will always permit correct subsequent interpretations and correlations. Thoughtless descriptions, poor photographs, and unclear diagrams lead to needless speculation and, often, civil or criminal injustice.

It is expected that medicolegal autopsy reports, and the accompanying photographs and diagrams, will be scrutinized by others: families, lawyers, insurance agents, courts, juries, and other medical and scientific professionals. All these items must

therefore be clear, understandable, and well organized. Photographs should contain no extraneous items (tools, people, blood, etc) and should include a small label with the case accession number neatly marked (the key words being “small” and “neatly”). Diagrams made at the autopsy table should be redrawn to clarify the injuries and their locations, eliminating other nonessential notations included on the original sketch. All this is necessary to answer questions and consider scenarios that may arise months or years later.

The Purpose of This Book

Forensic pathology strives to determine the cause of sudden natural and unnatural death, characterize and interpret the role of injurious physical agents on the body, and, frequently, establish the relationship between natural disease and physical injury. To the forensic pathologist, life and death is the summation of human interaction with the environment. The morphologic expressions of this interaction vary with culture and changing societal norms, technologic impact, and geography. A present-day atlas of forensic pathology is far different from one that could be imagined a hundred years ago or one that will be created at the dawn of the 22nd century.

The depictions in this atlas therefore reflect the experience of the authors. It should be used as a guide to build one’s knowledge of the variations and nuances of injury patterns encountered in actual practice today.

The topic of sudden natural death (excluding sudden infant death syndrome) is not addressed here because the topic actually requires a treatise of its own. Likewise, the subjects of physical anthropology and forensic odontology are excluded because they are highly specialized and adequate reference works already exist. Space limitations preclude illustrating vehicular crash injuries except for those involving automobiles. In most civilian

Table 1. Differing Characteristics of Hospital and Forensic Autopsies

Hospital autopsy

- Makes correlations with history and chart
- Patient already identified
- Addresses disease process
- Looks for drug reactions
- Seeks mechanism of death
- Has academic orientation
- Is subject to medical confidentiality
- Relies on histologic assessment
- May be performed by a pathology assistant
- Requires permission of next of kin
- Summarizes history in protocol
- Results in provisional anatomic diagnosis (PAD)
- Has clinical pathology correlation in protocol

Forensic autopsy

- Makes correlations with terminal event/scene of death
- Initial identification often uncertain
- Examines trauma, with or without disease
- Concentrates on toxicologic findings
- Seeks cause and manner of death
- Has evidentiary and confirmatory value
- Is a matter of public interest/record
- Seeks histologic confirmation
- Must be performed by a pathologist
- Performed under legal authorization or mandate
- Has no history in protocol
- Results in death certificate and objective findings
- Provides objective report without interpretation

practices, injuries from bombs and explosions are fairly rare, and the findings are extremely varied depending on the type of device used (invariably homemade) and the environment where the incident occurs. For these reasons, and given the fact that each case would require many illustrations, this topic, too, is omitted. Procedures for identification require a team approach utilizing consultants in dactylography, dentistry, radiology, anthropology, and serology, among others, and are considered to be beyond the scope of this atlas.

Acknowledgments

A special thanks is extended to all the students, residents, and colleagues who asked questions and shared their knowledge, expertise, and photographs with us.

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