Preface

In the study of medicine, *pathology* is the subject that concentrates on the mechanisms of a disease process and the morphologic changes in tissue that it causes. Therefore, it is only natural to attempt to render the material more accessible to students by making maximum use of illustrative images while keeping tedious theory to a minimum. In our approach to this book project, we opted for the *concept of a Thieme pocket atlas,* in which each topic is treated in a two-page spread that combines informative text and figures.

This pathology book focuses on *general pathology.* Aside from general pathology, the initial phase of the medical school curriculum customarily includes the basics of the pathology of organ systems and processes including the respiratory system, liver, gastrointestinal tract, excretory organs, nervous system, and endocrine system. The book covers these topics as patterns of injury that can affect more than one specific organ or tissue. As an integral whole, they affect life processes: metabolism and transport of substances, response to stimuli, preservation of the individual, cell growth and differentiation, and inheritance. We have also included numerous references to clinical findings. This was done to give the reader a better appreciation of our structuring of the subject of general pathology and to ensure that the book maintains a "medical" perspective. This approach uses general pathology to explain the processes occurring in the pathology of specific organs, and it uses the pathology of specific organs as examples to illustrate processes of general pathology. In our efforts to adequately address the diversity implied by such an understanding of pathology in a manner appropriate to an educational setting, we have proceeded as follows:

Chapter structure: Each of the 25 chapters begins with a "headline" that summarizes the content of the chapter in a single metaphoric sentence. This is followed by a *summary* in the style of a press release that gives readers both a concise overview of the goal of the specific chapter and a lively introduction to the topic. Completing the chapter is a *transition* to the next section.

Descriptive text: We have kept the text short in an effort to make the individual disease processes accessible at a glance without turning pages. Explanations and disease processes are presented in the form of *pathogenetic chain reactions,* in which these processes are presented as linear sequences of events. Wherever possible, we also provide the reader with *analogies* that illustrate the concept or serve as useful rules of thumb.

The medical thinking that leads to a clinical diagnosis is both algorithmic and associative. When one considers that most diagnoses are common but that the remaining rare diagnoses can apply in situations that initially appear to be clear-cut, it becomes clear that the physician must be familiar with these special cases as well. With this in mind, we have made an effort to briefly mention the *incidence* of clinically relevant processes and to point out the underlying pathogenetic principles for which they are *textbook examples.* As some of these principles occur in several disease processes, we have included cross references for recommended *recapitulation.*

The description of each disease process is divided into the sections *definition, pathogenesis,* and *morphology,* and is supplemented in applicable cases by the following additional passages:

Clinical presentation: Here the reader finds information on epidemiology, symptoms, and complications as they relate directly to the specific disease process.

Associated diseases: These entities follow the general pathologic principle discussed in the immediately preceding section. Chosen for their power of illustration, they represent examples that have a distinct effect on organs and tissues.

Sequelae: These are clinically distinct entities that are based on the general pathologic principle discussed in the immediately preceding section.

Note: This section includes illustrations, rules of thumb, and memory aids, some of which have been formulated by past instructors of pathology.

Prominent patients: Under this heading, we have attempted to break through the anonymity of the disease and give the disorder a very personal association. The purpose of this is to make it clear that the disease can affect any one of us and that it is not merely of clinical interest to the physician but represents a very human problem as well. This section also includes clinical records that illustrate the biologic extremes that can be reached.

Figures: We have devoted particular attention and great effort to the production and selection of images. Most of the images were created specifically for this atlas and entailed elaborate preparation of the specimens. In doing so, we paid special attention to several factors.

Normal tissue: Wherever possible, we have included the normal structures of the most important organs and tissues for the sake of comparison. Such a visual comparison makes a more lasting impression and conveys a better understanding of the altered structure than any verbal description.

Macrostructure and microstructure: Physicians who perform open or endoscopic surgery are routinely confronted with the macroscopic aspects of disease processes. For this reason, we have attached great importance to including both macroscopic and microscopic images of tissue changes. To illustrate histologic changes, we have used modern research and diagnostic techniques such as enzyme histochemical studies, immunohistochemical studies, and lectin histochemical studies; and with the aid of electron microscopy and molecular biology, we have expanded our coverage to include ultrastructural and supramolecular changes.

Diagrams and cartoons: Many concepts and disease processes cannot be suitably illustrated with histologic images. To facilitate an understanding of these concepts and processes, we have employed a concept that concentrates on representing the essential elements involved, wherever possible in the form a linear progression. To prevent the book from becoming overly tedious as a result of this objective presentation of information, we have taken the liberty of representing certain disease processes in the form of pathologic cartoons.

In this manner, we use a combination of text and images to examine those abnormal manifestations of life processes that lead to suffering. The purpose of pathology, literally "the study of suffering," is to teach one how to recognize a certain disease in its specific manifestation and how to comprehend its course so that the attending physician can act appropriately to relieve suffering. In this manner, pathology makes an important contribution to society as a whole. For a society that is oblivious to individual suffering is ruthless and inhuman. Moreover, the study of suffering can represent a gain for the individual as well. For it may well be that the only reason our soul is encased in a body is to allow it to experience that most important aspect of all creation: love.

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