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Neurology

神经病学案例54例

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出版说明

Case Files 是美国麦格劳 - 希尔教育出版公司医学图书中的著名品牌系列图书, 被世界多所著名医学院校选定为教学用书。北京大学医学出版社与麦格劳 - 希尔教育出版公司合作, 全套影印出版了该丛书。包括:

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该丛书具有以下特点:

一、形式上, 原版图书影印, 忠实展现原版图书的原汁原味, 使国内读者直接体会医学原版英文图书的叙述方式和叙述风格。

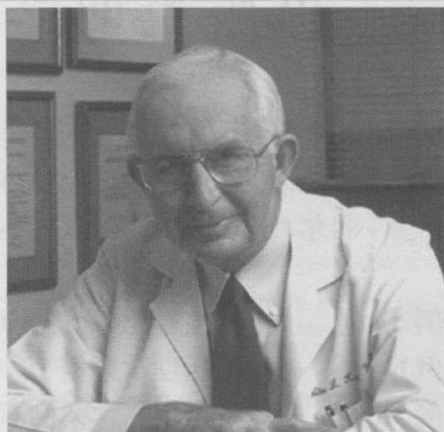
二、内容上, 每个分册包含几十个经典案例。基础学科强调与临床的结合, 临床学科强调临床思维的培养。

三、以案例和问题导入, 互动式学习, 尤其适合 PBL (问题为中心的学习) 和 CBL (案例为中心的学习)。

本系列书可作为医学院校双语教学或留学生教学的教材或教学辅导用书, 也是医学生学习医学英语的优秀读物。在世界范围内, 该系列书还是参加美国医师执照考试的必备用书。

北京大学医学出版社

DEDICATION



This is the first Case Files book that has originated from The Methodist Hospital-Houston. It is dedicated to **Dr. Alan L. Kaplan**, the excellent, insightful, and compassionate chairman of the Department of Obstetrics and Gynecology at The Methodist Hospital and professor of Obstetrics and Gynecology at the Weill Medical College of Cornell University. He received his medical degree in 1955 from Columbia University of Physicians and Surgeons in New York. He completed his residency at Columbia Presbyterian Medical Center in 1959. He then served 2 years in the Army, after which he returned to Columbia Presbyterian Medical Center for fellowship training, which he completed in 1963. He joined Baylor College of Medicine in 1963 and was with the Department of Obstetrics and Gynecology for 42 years. He served as Professor and Director of the Division of Gynecologic Oncology. Dr. Kaplan became a certified Diplomate of the American Board of Obstetrics and Gynecology in 1966, and earned his certification in Gynecologic Oncology in 1974. Dr. Kaplan is a member of numerous professional societies, many of which relate to his specialty field—female cancers. He has served on various editorial boards and is active on committees of both the professional organizations and the hospitals at which he practices. In his clinical practice, he cares for women with gynecologic surgical problems and female cancers. He enjoys jogging, swimming, reading, and tennis.

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We appreciate all the kind remarks and suggestions from the many medical students over the past 3 years. Your positive reception has been an incredible encouragement, especially in light of the short life of the *Case Files* series. In this second edition of *Case Files: Neurology*, the basic format of the book has been retained. Improvements were made in updating many of the chapters. New cases include the Floppy Infant, Optic Neuritis, Multiple Sclerosis, and Febrile Seizures. We reviewed the clinical scenarios with the intent of improving them; however, their “real-life” presentations patterned after actual clinical experience were accurate and instructive. The multiple-choice questions have been carefully reviewed and rewritten to ensure that they comply with the National Board and USMLE format. Through this second edition, we hope that the reader will continue to enjoy learning diagnosis and management through the simulated clinical cases. It certainly is a privilege to be teachers for so many students, and it is with humility that we present this edition.

As a physician, I am indebted to the numerous excellent physicians in the Obstetrics/Gynecology Department, among whom I particularly appreciate Drs. Aram Kana, Eric Haffner, Barbara Held, Waverly Peaker, and Keith Brevin. At St. Joseph Medical Center, I applaud the excellent administrators Pat Althaus, Tina Cohen, Paula Ehrlich, Margaret Jones, and Drs. John Bartini and Thomas V. Taylor for their commitment to medical education, and Linda Bergman for her wise advice and support. Most of all, I appreciate my ever-loving wife Terri and four wonderful children, Andy, Michael, Allison, and Christian, for their patience, encouragement, understanding, and “sharing their father” with me during my writing.

Elaine C. Tan

The curriculum that evolved into the ideas for this series was inspired by two talented and forthright students, Philbert Yau and Chuck Rosipal, who have since graduated from medical school. It has been a pleasure to work with Dr. Ericka Simpson, a brilliant, compassionate, and dedicated teacher and the other talented neurologists. She has been an excellent leader of her team, and has been even more insightful and balanced in her treatment of the second edition. I am greatly indebted to my editor, Catherine Johnson, whose exuberance, experience, and vision helped to shape this series. I appreciate Cindy Yoo's editing expertise, Catherine Saggese's production skill, and Ridhi Mathur's outstanding project management. I appreciate McGraw-Hill's believing in the concept of teaching through clinical cases. My "family" at McGraw-Hill has been most gracious, particularly recently giving my entire family a royal tour at the New York facility. At Methodist Hospital, I thank our excellent administrators Drs. Marc Boom, H. Dirk Sostman, and Judy Paukert, and Ms. Debra Chambers. Likewise, I am indebted to the numerous excellent physicians in the Obstetrics/Gynecology Department, among whom I particularly appreciate Drs. Aparna Kamat, Eric Haufrect, Barbara Held, Waverly Peakes, and Keith Reeves. At St. Joseph Medical Center, I applaud the excellent administrators: Pat Mathews, Tina Coker, Paula Efird, Margaret Jones, and Drs. John Bertini and Thomas V. Taylor for their commitment to medical education, and Linda Bergstrom for her sage advice and support. Most of all, I appreciate my ever-loving wife Terri, and four wonderful children, Andy, Michael, Allison, and Christina, for their patience, encouragement, understanding, and "sharing their father" with my students and writing.

Eugene C. Toy

HOW TO GET THE MOST OUT OF THIS BOOK

Each case is designed to simulate a patient encounter with open-ended questions. At times, the patient's complaint is different from the main concerning issue, and sometimes extraneous information is given. The answers are organized with two different parts:

PART I

1. **Summary**—The salient aspects of the case are identified, filtering out the extraneous information. The student should formulate his or her summary from the case before looking at the answers. A comparison to the summation in the answer will help to improve one's ability to focus on the important data while appropriately discarding the irrelevant information, a fundamental skill in clinical problem solving.
2. **A straightforward Answer** is given to each open-ended question.

Mastering the cognitive knowledge within a field such as neurology is a formidable task. It is even more difficult to draw on that knowledge, procure and filter through the clinical and laboratory data, develop a differential diagnosis, and finally to form a rational treatment plan. To gain these skills, the student often learns best at the bedside, guided and instructed by experienced teachers, and inspired toward self-directed, diligent reading. Clearly, there is no replacement for education at the bedside. Unfortunately, clinical situations usually do not encompass the breadth of the specialty. Perhaps the best alternative is a carefully crafted patient case designed to simulate the clinical approach and decision making. In an attempt to achieve that goal, we have constructed a collection of clinical vignettes to teach diagnostic or therapeutic approaches relevant to the discipline of neurology. Most importantly, the explanations for the cases emphasize the mechanisms and underlying principles, rather than merely rote questions and answers.

This book is organized for versatility: it allows the student “in a rush” to go quickly through the scenarios and check the corresponding answers, as well as the student with more time to have thought-provoking explanations. The answers are arranged from simple to complex: a summary of the pertinent points, the bare answers, an analysis of the case, an approach to the topic, a comprehension test at the end for reinforcement and emphasis, and a list of resources for further reading. The clinical vignettes are purposely placed in random order to simulate the way that real patients present to the practitioner. A listing of cases is included in Section III to aid the student who desires to test his or her knowledge of a certain area, or to review a topic including basic definitions. Finally, we intentionally did not primarily use a multiple-choice question (MCQ) format because clues (or distractions) are not available in the real world. Nevertheless, several MCQs are included at the end of each scenario to reinforce concepts or introduce related topics.

HOW TO GET THE MOST OUT OF THIS BOOK

Each case is designed to simulate a patient encounter with open-ended questions. At times, the patient's complaint is different from the most concerning issue, and sometimes extraneous information is given. The answers are organized with four different parts:

PART I

1. **Summary**—The salient aspects of the case are identified, filtering out the extraneous information. The student should formulate his or her summary from the case before looking at the answers. A comparison to the summation in the answer will help to improve one's ability to focus on the important data, while appropriately discarding the irrelevant information, a fundamental skill in clinical problem solving.
2. A straightforward Answer is given to each open-ended question.

3. The Analysis of the Case, which is comprised of two parts:
 - a. Objectives of the Case—A listing of the two or three main principles that are crucial for a practitioner to manage the patient. Again, the student is challenged to make educated “guesses” about the objectives of the case on initial review of the case scenario, which help to sharpen his or her clinical and analytical skills.
 - b. Considerations—A discussion of the relevant points and brief approach to the specific patient.

PART II

Approach to the Disease Process—This has two distinct parts:

- a. Definitions or Neurophysiology—Terminology or neuroanatomy correlates pertinent to the disease process.
- b. Clinical Approach—A discussion of the approach to the clinical problem in general, including tables, figures, and algorithms.

PART III

Comprehension Questions—Each case contains several multiple-choice questions that reinforce the material, or introduce new and related concepts. Questions about material not found in the text will have explanations in the answers.

PART IV

Clinical Pearls—A listing of several clinically important points are reiterated as a summation of the text and allow for easy review such as before an examination.

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How to Approach Clinical Problems

Part 1 Approach to the Patient

Part 2 Approach to Clinical Problem Solving

Part 3 Approach to Reading

Part 1. Approach to the Patient

Applying “book learning” to a specific clinical situation is one of the most challenging tasks in medicine. To do so, the clinician must not only retain information, organize facts, and recall large amounts of data but also apply all of these to the patient. The purpose of this text is to facilitate these processes.

The first step involves gathering information, also known as establishing the database. This includes taking the history, performing the physical examination, and obtaining selective laboratory examinations, special studies, and/or imaging tests. Sensitivity and respect should always be exercised during the interview of patients. A good clinician also knows how to ask the same question in several different ways, using different terminology. For example, patients may deny having “tremulousness” but will answer affirmatively to feeling “shaky.”

CLINICAL PEARL

- The history is usually the single most important tool in obtaining a diagnosis. The art of seeking this information in a nonjudgmental, sensitive, and thorough manner cannot be overemphasized.

HISTORY

1. Basic Information:

- a. **Age:** Some conditions are more common at certain ages; for instance, forgetfulness is more likely to be caused by dementia in an elderly patient than the same complaint in a teenager.
- b. **Gender:** Some disorders are more common in men such as cluster headaches. In contrast, women more commonly have migraine headaches. Also, the possibility of pregnancy must be considered in any woman of child-bearing age.
- c. **Ethnicity:** Some disease processes are more common in certain ethnic groups (such as type 2 diabetes mellitus in Hispanic patients).
- d. **Course:** Certain conditions are characterized by a particular clinical course such as relapsing-remitting, slowly progressive, or acute/subacute, which aids in making a differential diagnosis.

CLINICAL PEARL

- The discipline of neurology illustrates the importance of understanding how to correlate the neuroanatomical defect to the clinical manifestation.

2. **Chief complaint:** What is it that brought the patient into the hospital? Has there been a change in a chronic or recurring condition or is this a completely new problem? The duration and character of the complaint, associated symptoms,

and exacerbating/relieving factors should be recorded. The chief complaint engenders a differential diagnosis, and the possible etiologies should be explored by further inquiry.

CLINICAL PEARL

- The first line of any presentation should include *age, gender, marital status, handedness, and chief complaint*. Example: A 32-year-old married white right-handed male complains of left arm weakness and numbness.

3. Past Medical History:

- a. Major illnesses such as hypertension, diabetes, reactive airway disease, congestive heart failure, angina, or stroke should be detailed.
 - i. Age of onset, severity, end-organ involvement.
 - ii. Medications taken for the particular illness including any recent changes to medications and reason for the change(s).
 - iii. Last evaluation of the condition (eg, when was the last stress test or cardiac catheterization performed in the patient with angina?).
 - iv. Which physician or clinic is following the patient for the disorder?
- b. Minor illnesses such as recent upper respiratory infections should be noted.
- c. Hospitalizations no matter how trivial should be queried.

4. Past Surgical History: Note the date and type of procedure performed, indication, and outcome. Surgeon and hospital name/location should be listed. This information should be correlated with the surgical scars on the patient's body. Any complications should be delineated including anesthetic complications, difficult intubations, and so forth.

5. Allergies: Reactions to medications should be recorded, including severity and temporal relationship to medication. Immediate hypersensitivity should be distinguished from an adverse reaction.

6. Medications: A list of medications, dosage, route of administration and frequency, and duration of use should be developed. Prescription, over-the-counter, herbal remedies, and recreational or illicit drugs are all relevant. If the patient is currently taking antibiotics, it is important to note what type of infection is being treated.

7. Immunization History: Vaccination and prevention of disease is one of the principal goals of the primary care physician; however, recording the immunizations received including dates, age, route, and adverse reactions if any is critical in evaluating the neurology patient as well.

8. Social History: Occupation, marital status, family support, and tendencies toward depression or anxiety are important. Use or abuse of illicit drugs, tobacco, or alcohol should also be recorded.

9. **Family History:** Many major medical problems are genetically transmitted (eg, Huntington's disease and muscular dystrophy). In addition, a family history of conditions such as Alzheimer dementia and ischemic heart disease can be a risk factor for the development of these diseases. Social history including marital stressors, sexual dysfunction, and sexual preference are of importance.
10. **Review of Systems:** A systematic review should be performed but focused on the life-threatening and the more common diseases. For example, in a young man with a testicular mass, trauma to the area, weight loss, and infectious symptoms are important to note. In an elderly woman with generalized weakness, symptoms suggestive of cardiopulmonary disease should be elicited, such as chest pain, shortness of breath, fatigue, or palpitations.

PHYSICAL EXAMINATION

1. **General appearance:** Note mental status, alert versus obtunded, anxious, in pain, in distress, interaction with other family members and with examiner. Note any dysmorphic features of the head and body, which may also be important for many inherited or congenital disorders.
2. **Vital signs:** Record the temperature, blood pressure, heart rate, and respiratory rate. Oxygen saturation is useful in patients with respiratory symptoms. Height and weight are often placed here with a body mass index (BMI) calculated ($BMI = \text{kg/m}^2$ or lb/in^2).
3. **Head and neck examination:** Evidence of trauma, tumors, facial edema, goiter and thyroid nodules, and carotid bruits should be sought. In patients with altered mental status or a head injury, pupillary size, symmetry, and reactivity are important. Mucous membranes should be inspected for pallor, jaundice, and evidence of dehydration. Cervical and supraclavicular nodes should be palpated.
4. **Breast examination:** Inspection for symmetry and skin or nipple retraction as well as palpation for masses. The nipple should be assessed for discharge, and the axillary and supraclavicular regions should be examined.
5. **Cardiac examination:** The point of maximal intensity (PMI) should be ascertained, and the heart auscultated at the apex as well as base. It is important to note whether the auscultated rhythm is regular or irregular. Heart sounds (including S_3 and S_4), murmurs, clicks, and rubs should be characterized. Systolic flow murmurs are fairly common as a result of the increased cardiac output, but significant diastolic murmurs are unusual.
6. **Pulmonary examination:** The lung fields should be examined systematically and thoroughly. Stridor, wheezes, rales, and rhonchi should be recorded. The clinician should also search for evidence of consolidation (bronchial breath sounds, egophony) and increased work of breathing (retractions, abdominal breathing, accessory muscle use).