

# **CASE FILES**® SURGERY

# 外科学案例 56 例

- 56 real-life cases help you learn core competencies to excel in the clerkship
- USMLE-style review questions and clinical pearls reinforce learning
- Proven learning system maximizes your exam scores

TOY • LIU • CAMPBELL



北京大学医学出版社

## FOR THE

# **KSHIP**

You need exposure to high-yield cases to excel in the surgery clerkship and on the shelf exam. Case Files\*: Surgery presents 56 real-life cases that illustrate essential concepts in surgery. Each case includes a complete discussion, clinical pearls, references, definitions of key terms, and USMLE-style review questions. With this system, you'll learn in the context of real patients, rather than merely memorize facts.

- 56 high-yield cases, each with USMLE-style questions, help you master core competencies to excel on the clerkship and ace the shelf exam
- Clinical pearls highlight key concepts
- Primer teaches you how to approach clinical problems
- Proven learning system maximizes your shelf exam scores

### HERE'S WHAT STUDENTS HAVE TO SAY ...

"... an extremely useful resource. It is a quick read and it serves to cover all the important topics pertaining to surgery at a level appropriate for a third-year medical student or surgical intern. It serves as a good introduction to the basic surgical diseases and their management."

 – Jeffrey Feiner, Medical Student, Buffalo Medical School (reviewing previous edition)

# 全球智慧中文化

http://www.mheducation.com

This edition is authorized for sale in the People's Republic of China only, excluding Hong Kong, Macao SAR and Taiwan. 此英文影印版仅限在中华人民共和国境内(不包括香港、澳门特别行政区及台湾)销售。



定价: 96

# CASE FILES® Surgery 外科学案例56例

Eugene C. Toy, MD

The John S. Dunn, Senior Academic Chair

St. Joseph Medical Center

Houston, Texas

Vice Chair of Academic Affairs and Ob/Gyn Residency Program Director

Department of Obstetrics and Gynecology

The Methodist Hospital

Houston, Texas

Clinical Professor and Clerkship Director

Department of Obstetrics and Gynecology

University of Texas Medical School at Houston

Houston, Texas

#### Terrence H. Liu, MD, MPH

Professor of Clinical Surgery

University of California San Francisco School of Medicine

San Francisco, California

Program Director

University of California, San Francisco East Bay Surgery Residency

San Francisco, California

Attending Surgeon, Alameda County Medical Center

Oakland, California

#### Andre R. Campbell, MD, FACS

Clerkship Director

University of California San Francisco School of Medicine

San Francisco, California

Professor of Clinical Surgery

Endowed Chair of Surgical Education

Department of Surgery

University of Californ

San Francisco Genera

San Francisco, Califo



#### 图书在版编目(CIP)数据

外科学案例 56 例: 第 4 版: 英文 / (美) 拖伊 (Toy,E.C.), (美) 刘 (Liu,Tt.H.), (美) 坎贝尔 (Campbell,A.R.) 编.—北京:北京大学医学出版社,2013.11 书名原文: Case files:Surgery

ISBN 978-7-5659-0688-6

I. ①外… II. ①拖… ②刘… ③坎… III. ①外科学-教材-英文 IV. ① R6

中国版本图书馆 CIP 数据核字 (2013) 第 267135 号

Eugene C. Toy, Terrence H. Liu, Andre R. Campbell

Case Files: Surgery, Fourth Edition

ISBN 978-0-07-176699-9

Copyright<sup>®</sup> 2012 by McGraw-Hill Education.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including without limitation photocopying, recording, taping, or any database, information or retrieval system, without the prior written permission of the publisher.

This authorized English reprint edition is jointly published by McGraw-Hill Education(Asia) and Peking University Medical Press. This edition is authorized for sale in the People's Republic of China only, excluding Hong Kong SAR, Macao SAR and Taiwan.

Copyright<sup>©</sup> 2012 by McGraw-Hill Education (Asia), a division of McGraw-Hill Education (Singapore) Pte. Ltd. and Peking University Medical Press.

版权所有。未经出版人事先书面许可,对本出版物的任何部分不得以任何方式或途径复制或传播,包括但不限于复印、录制、录音,或通过任何数据库、信息或可检索的系统。本授权英文影印版由麦格劳-希尔(亚洲)教育出版公司和北京大学医学出版社合作出版。此版本经授权仅限在中华人民共和国境内(不包括香港特别行政区、澳门特别行政区和台湾)销售。

版权<sup>©</sup> 2012 由麦格劳 - 希尔(亚洲)教育出版公司与北京大学医学出版社所有。本书封面贴有 McGraw-Hill Education 公司防伪标签,无标签者不得销售。 北京市版权局著作权合同登记号: 01-2013-8438

#### 外科学案例56例(第4版)

编 写: Eugene C. Toy, Terrence H. Liu, Andre R. Campbell

出版发行: 北京大学医学出版社(电话: 010-82802230)

地 址: (100191) 北京市海淀区学院路38号 北京大学医学部院内

网 址: http://www.pumpress.com.cn

E-mail: booksale@bjmu.edu.cn

印 刷:北京画中画印刷有限公司

经 销:新华书店

责任编辑: 冯智勇 责任校对: 齐 欣 责任印制: 张京生

开 本: 970mm×650mm 1/16 印张: 34 字数: 637千字

版 次: 2014年1月第1版 2014年1月第1次印刷

书 号: ISBN 978-7-5659-0688-6

定 价: 96.00元

版权所有, 违者必究

(凡属质量问题请与本社发行部联系退换)

## 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:

- 生理学案例 51 例
- 解剖学案例 60 例
- 药理学案例 56 例
- 内科学案例 60 例
- 妇产科学案例 60 例
- 神经病学案例 54 例
- 心脏病学案例 50 例

- 生物化学案例 60 例
- 病理学案例 50 例
- 微生物学案例 60 例
- 外科学案例 56 例
- 儿科学案例 60 例
- 骨科学案例 45 例
- 麻醉学案例 53 例

#### 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**

To my dear parents Chuck and Grace who taught me the importance of pursuing excellence and instilled in me a love for books; to my sister Nancy for her compassion and unselfishness, her husband Jason and their beautiful daughters Madison and Peyton; and to my brother Glen for his friendship and our fond memories growing up, his wife Linda, and their precious son Eric.

#### - ECT

To my wife Eileen for her love,
friendship, support, and encouragement.
To my parents George and Jackie
for their constant loving support,
and to my sons Andrew and Gabriel
who show to me the importance of family values,
every day. To all my teachers and mentors,
who took the time and effort to teach and serve as role models.

#### - THL

To the wonderful medical students of the University of Texas Medical School at Houston for whom this curriculum was developed.

#### - THE AUTHORS

M. Kelley Bullard, MD Associate Professor of Clinical Surgery Department of Surgery University of California, San Francisco-East Bay Oakland, California The Hypotensive Patient

Eileen T. Consorti, MD, MS Chief of Surgery Alta Bates Medical Center Berkeley, California Breast Cancer Breast Cancer Risk and Surveillance Nipple Discharge (Serosanguineous)

Emily J. Miraflor, MD
Postdoctoral Research Fellow
Department of Surgery
University of California, San Francisco-East Bay
Oakland, California
Small Bowel Obstruction

Barnard J. A. Palmer, MD, MEd Surgical Resident Department of Surgery University of California, San Francisco-East Bay Oakland, California Adrenal Incidentaloma and Pheochromocytoma Thyroid Mass Hyperparathyroidism

Gregory P. Victorino, MD
Chief of Trauma
University of California, San Francisco East Bay Surgery Residency
Associate Professor of Clinical Surgery
University of California San Francisco School of Medicine
Oakland, California
Postoperative Acute Respiratory Insufficiency

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 fourth edition of Case Files®: Surgery, the basic format of the book has been retained. Improvements were made by updating many of the chapters, with five completely rewritten cases: Breast Cancer Risk and Surveillance, Colon Cancer, Thyroid Mass, Pheochromocytoma, and Hemorrhage and Hypotension. We reviewed the clinical scenarios with the intent on improving them; however, we found that their real-life presentations patterned after actual clinical experience remained accurate and instructive. The multiple-choice questions have been carefully reviewed and rewritten to ensure that they comply with the National Board and USMLE formats. By reading this fourth edition, we hope that you will continue to enjoy learning surgical management through the simulated clinical cases. It is certainly a privilege to be a teacher for so many students, and it is with humility that we present this edition.

The Authors

#### **ACKNOWLEDGMENTS**

The curriculum that evolved into the ideas for this series was inspired by two talented and forthright students, Philbert Yao and Chuck Rosipal, who have since graduated from medical school. It has been a tremendous joy to work with my friend since medical school, Terry Liu, a brilliant surgeon. Likewise, it has been rewarding to collaborate with Andre Campbell, the endowed chair of surgical education at the University of California, San Francisco, and the many excellent contributors. I am greatly indebted to my editor, Catherine Johnson, whose exuberance, experience, and vision helped to shape this series. I appreciate McGraw-Hill's believing in the concept of teaching through clinical cases. I am also grateful to Catherine Saggese for her excellent production expertise and Cindy Yoo for her wonderful editing. Tania Andrabi deserves acknowledgement for her patience and precision as project manager for this book. At Methodist Hospital, I appreciate the great support from Drs Marc Boom, Dirk Sostman, Alan Kaplan, and Judy Paukert. Likewise, I appreciate Linda Bergstrom and Debby Chambers for their advice and support. At St. Joseph, I must praise the inspiring leadership of Pat Mathews, Tripp Montalbo, and Tina Coker, Without my dear colleagues, Drs Konrad Harms, Priti Schachel, John C. McBride, and Gizelle Brooks-Carter, this book could not have been written. Most of all, I appreciate my loving wife, Terri, and my four wonderful children, Andy, Michael, Allison, and Christina, for their patience and understanding.

Eugene C. Toy

Mastering the cognitive knowledge within a field such as general surgery 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 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 stimulate the clinical approach and decision making. In an attempt to achieve this goal, we have constructed a collection of clinical vignettes to teach diagnostic or therapeutic approaches relevant to general surgery. 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 to allow the student "in a rush" to go quickly through the scenarios and check the corresponding answers, and to provide more detailed information for the student who wants 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 arranged randomly in 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 format because clues (or distractions) are not available in the real world. Nevertheless, several multiple-choice questions 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 and includes open-ended questions. At times, the patient's complaint differs from the issue of most concern, and sometimes extraneous information is given. The answers are organized into four different parts:

#### PART I

- 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 with the summation in the answer
  help to improve one's ability to focus on the important data while appropriately discarding irrelevant information, a fundamental skill required in clinical
  problem solving.
- 2. A straightforward answer is given to each open-ended question.

- 3. An analysis of the case, which consists of two parts:
  - a. Objectives: A listing of the two or three main principles, which are crucial for a practitioner in treating a patient. Again, the student is challenged to make educated "guesses" about the objectives of the case after an 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 a brief approach to a specific patient.

#### PART II

An approach to the disease process, consisting of two distinct parts:

- a. Definitions: Terminology pertinent to the disease process
- Clinical Approach: A discussion of the approach to the clinical problem in general, including tables, figures, and algorithms.

#### PART III

**Comprehension Questions:** Each case includes several multiple-choice questions, which reinforce the material or introduce new and related concepts. Questions about material not found in the text are explained in the answers.

#### PART IV

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

## CONTENTS

Contributors / vii
Preface / ix
Acknowledgments / xi
Introduction / xiii
Section I
How to Approach Clinical Problems
Part 1. Approach to the Patient
Part 2. Approach to Clinical Problem Solving
Part 3. Approach to Reading
Section II
Clinical Cases
Fifty-Six Case Scenarios
Section III
Listing of Cases
Listing by Case Number
Listing by Disorder (Alphabetical)

Index / 505

SECTION I

# 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

The transition from textbook or journal article learning to an application of the information in a specific clinical situation is one of the most challenging tasks in medicine. It requires retention of information, organization of the facts, and recall of myriad data with precise application to the patient. The purpose of this text is to facilitate this process. The first step is gathering information, also known as establishing the database. This includes recording the patient's history; performing the physical examination; and obtaining selective laboratory examinations, special evaluations such as breast ductograms, and/or imaging tests. Of these, the historical examination is the most important and most useful. Sensitivity and respect should always be exercised during the interview of patients.

#### **CLINICAL PEARL**

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

#### HISTORY

#### 1. Basic information:

- a. Age: Must be recorded because some conditions are more common at certain ages; for instance, age is one of the most important risk factors for the development of breast cancer.
- b. Gender: Some disorders are more common in or found exclusively in men such as prostatic hypertrophy and cancer. In contrast, women more commonly have autoimmune problems such as immune thrombocytopenia purpura and thyroid nodules. Also, the possibility of pregnancy must be considered in any woman of childbearing age.
- c. **Ethnicity:** Some disease processes are more common in certain ethnic groups (such as diabetes mellitus in the Hispanic population).

#### **CLINICAL PEARL**

- The possibility of pregnancy must be entertained in any woman of childbearing age.
- 2. Chief complaint: What is it that brought the patient into the hospital or office? Is it a scheduled appointment or an unexpected symptom such as abdominal pain or hematemesis? The duration and character of the complaint, associated symptoms, and exacerbating and/or 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 surgical presentation should include age, ethnicity, gender, and chief complaint. Example: A 32-year-old Caucasian man complains of lower abdominal pain over an 8-hour duration.

#### 3. Past medical history:

- a. Major illnesses such as hypertension, diabetes, reactive airway disease, congestive heart failure, and angina should be detailed.
  - i. Age of onset, severity, end-organ involvement.
  - ii. Medications taken for a particular illness, including any recent change in medications and the reason for the change.
  - iii. Last evaluation of the condition. (eg, When was the last echocardiogram performed in a patient with congestive heart failure?)
  - iv. Which physician or clinic is following the patient for the disorder?
- b. Minor illnesses such as a recent upper respiratory tract infection may impact on the scheduling of elective surgery.
- c. Hospitalizations no matter how trivial should be detailed.
- 4. Past surgical history: Date and type of procedure performed, indication, and outcome. Laparoscopy versus laparotomy should be distinguished. Surgeon, hospital name, and 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 on.
- Allergies: Reactions to medications should be recorded, including severity and temporal relationship to administration of medication. Immediate hypersensitivity should be distinguished from an adverse reaction.
- 6. **Medications:** A list of medications, including dosage, route of administration and frequency, and duration of use should be developed. Prescription, over-the-counter, and herbal remedies are all relevant.
- Social history: Marital status; family support; alcohol use, use or abuse of illicit drugs, and tobacco use; and tendencies toward depression or anxiety are important.
- 8. Family history: Major medical problems, genetically transmitted disorders such as breast cancer, and important reactions to anesthetic medications, such as malignant hyperthermia (an autosomal dominant transmitted disorder) should be explored.
- 9. Review of systems: A system review should be performed focusing on the more common diseases. For example, in a young man with a testicular mass, trauma to the area, weight loss, neck masses, and lymphadenopathy are important. In an elderly woman, symptoms suggestive of cardiac disease should be elicited, such as chest pain, shortness of breath, fatigue, weaknesses, and palpitations.

#### 4

#### **CLINICAL PEARL**

▶ Malignant hyperthermia is a rare condition inherited in an autosomal dominant fashion. It is associated with a rapid rise in temperature up to 40.6°C (105°F), usually on induction by general anesthetic agents such as succinylcholine and halogenated inhalant gases. Prevention is the best treatment.

#### PHYSICAL EXAMINATION

- 1. General appearance: Note whether the patient is cachectic versus well nourished, anxious versus calm, alert versus obtunded.
- 2. Vital signs: Record the temperature, blood pressure, heart rate, and respiratory rate. Height and weight are often included here. For trauma patients, the Glasgow Coma Scale (GCS) is important.
- 3. Head and neck examination: Evidence of trauma, tumors, facial edema, goiter and thyroid nodules, and carotid bruits should be sought. With a closed-head injury, pupillary reflexes and unequal pupil sizes are important. Cervical and supraclavicular nodes should be palpated.
- 4. Breast examination: Perform an inspection for symmetry and for skin or nipple retraction with the patient's hands on her hips (to accentuate the pectoral muscles) and with her arms raised. With the patient supine, the breasts should be palpated systematically to assess for masses. The nipples should be assessed for discharge, and the axillary and supraclavicular regions should be examined for adenopathy.
- 5. Cardiac examination: The point of maximal impulse should be ascertained, and the heart auscultated at the apex as well as at the base. Heart sounds, murmurs, and clicks should be characterized. Systolic flow murmurs are fairly common in pregnant women because of the increased cardiac output, but significant diastolic murmurs are unusual.
- Pulmonary examination: The lung fields should be examined systematically and thoroughly. Wheezes, rales, rhonchi, and bronchial breath sounds should be recorded.
- 7. Abdominal examination: The abdomen should be inspected for scars, distension, masses or organomegaly (ie, spleen or liver), and discoloration. For instance, the Grey Turner sign of discoloration on the flank areas may indicate an intra-abdominal or retroperitoneal hemorrhage. Auscultation should be performed to identify normal versus high-pitched, and hyperactive versus hypoactive, bowel sounds. The abdomen should be percussed for the presence of shifting dullness (indicating ascites). Careful palpation should begin initially away from the area of pain, involving one hand on top of the other, to assess for masses, tenderness, and peritoneal signs. Tenderness should be recorded on

- a scale (eg, 1 to 4, where 4 is the most severe pain). Guarding and whether it is voluntary or involuntary should be noted.
- 8. Back and spine examination: The back should be assessed for symmetry, tenderness, or masses. The flank regions are particularly important in assessing for pain on percussion that may indicate renal disease.

#### 9. Genital examination:

- a. Female: The external genitalia should be inspected, and the speculum then used to visualize the cervix and vagina. A bimanual examination should attempt to elicit cervical motion tenderness, uterine size, and ovarian masses or tenderness.
- b. Male: The penis should be examined for hypospadias, lesions, and infection. The scrotum should be palpated for masses and, if present, transillumination should be used to distinguish between solid and cystic masses. The groin region should be carefully palpated for bulging (hernias) on rest and on provocation (coughing). This procedure should optimally be repeated with the patient in different positions.
- c. Rectal examination: A rectal examination can reveal masses in the posterior pelvis and may identify occult blood in the stool. In females, nodularity and tenderness in the uterosacral ligament may be signs of endometriosis. The posterior uterus and palpable masses in the cul-de-sac may be identified by rectal examination. In the male, the prostate gland should be palpated for tenderness, nodularity, and enlargement.
- 10. Extremities and skin: The presence of joint effusions, tenderness, skin edema, and cyanosis should be recorded.
- Neurologic examination: Patients who present with neurologic complaints usually require thorough assessments, including evaluation of the cranial nerves, strength, sensation, and reflexes.

#### **CLINICAL PEARL**

- ► A thorough understanding of anatomy is important to optimally interpret the physical examination findings.
- 12. Laboratory assessment depends on the circumstances.
  - a. A complete blood count: To assess for anemia, leukocytosis (infection), and thrombocytopenia.
  - Urine culture or urinalysis: To assess for hematuria when ureteral stones, renal carcinoma, or trauma is suspected.
  - c. **Tumor markers:** For example, in testicular cancer,  $\beta$ -human chorionic gonadotropin,  $\alpha$ -fetoprotein, and lactate dehydrogenase values are often assessed.
  - d. Serum creatinine and serum urea nitrogen levels: To assess renal function, and aspartate aminotransferase (AST) and alanine aminotransferase (ALT) values to assess liver function.