SELLER

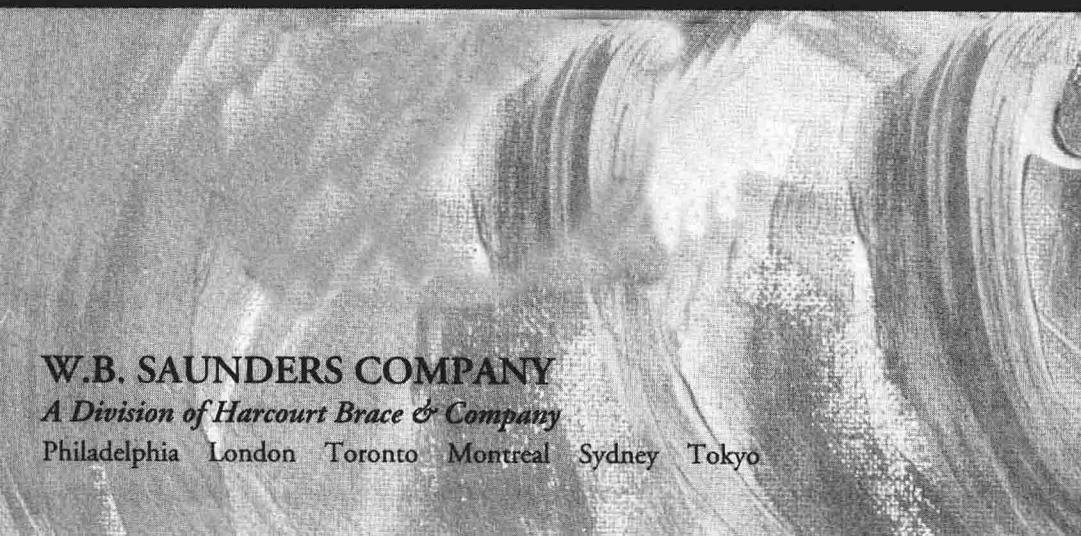
Differential Diagnosis of Common Complaints

FOURTH EDITION

ROBERT H. SELLER, M.D.
Professor of Family Medicine and Professor of Medicine
State University of New York at Buffalo
School of Medicine and Biomedical Sciences

Differential Diagnosis of Common Complaints

FOURTH EDITION



W.B. SAUNDERS COMPANY
A Division of Harcourt Brace & Company
Philadelphia London Toronto Montreal Sydney Tokyo

W.B. SAUNDERS COMPANY
A Division of Harcourt Brace & Company

The Curtis Center
Independence Square West
Philadelphia, Pennsylvania 19106

Library of Congress Cataloging-in-Publication Data

Seller, Robert H.
Differential diagnosis of common complaints / Robert H. Seller.—
4th ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-7216-8017-8

1. Diagnosis, Differential. I. Title.
[DNLM: 1. Diagnosis,
Differential. WB 141.5 S467d 2000]

RC71.5.S45 2000 616.07'5—dc21

DNLM/DLC 99-27918

DIFFERENTIAL DIAGNOSIS OF COMMON COMPLAINTS ISBN 0-7216-8017-8

Printed in the United States of America

Last digit is the print number: 9 8 7 6 5 4 3 2 1

Differential Diagnosis of Common Complaints

To the medical students,
physicians, and other health care providers
of the 21st century

NOTICE

Medicine is an ever-changing field. Standard safety precautions must be followed, but as new research and clinical experience broaden our knowledge, changes in treatment and drug therapy become necessary or appropriate. Readers are advised to check the product information currently provided by the manufacturer of each drug to be administered to verify the recommended dose, the method and duration of administration, and contraindications. It is the responsibility of the treating physician, relying on experience and knowledge of the patient, to determine dosages and the best treatment for each individual patient. Neither the Publisher nor the editor assume any liability for any injury and/or damage to persons or property arising from this publication.

THE PUBLISHER

Preface

The purpose of the fourth edition of *Differential Diagnosis of Common Complaints* remains the same as the first—to help physicians accurately and efficiently diagnose common complaints. This book emphasizes a clinical approach to diagnosis rather than one that relies largely on diagnostic studies. Most medical school curricula, texts, and continuing education courses deal with diseases. Patients, however, usually come to their physician complaining of headache, backache, or fatigue—not migraine, spinal stenosis, or depression. To address this reality, this book is organized around common presenting complaints—the patients' symptoms rather than the disease. The 36 symptoms reviewed account for more than 80% of the chief complaints with which physicians are confronted. The physician who has mastered the differential diagnosis of these symptoms will be able to diagnose accurately almost all the problems seen in a typical medical practice.

Each chapter deals with different common complaints, which are discussed alphabetically. The chapters are organized to approximate the problem-solving process that most physicians use to make a diagnosis. Initially, the presenting symptom suggests several diagnostic possibilities. Then this diagnostic list is further defined and reduced by additional, more specific, historic findings; by the patient's physical findings; and then by the results of diagnostic studies. The index lists all complaints, symptoms, and diagnoses in the text.

The fourth edition was revised to include suggestions by colleagues and students who like the book's clinical orientation and practical approach to differential diagnosis. Each chapter has been revised to include new information with emphasis on the latest clinical and diagnostic studies. Since the last edition, five new chapters have been added: Breast Lumps, Forgetfulness, Swelling of the Legs, Vision Problems, and Voiding Disorders and Incontinence. The diagrams and illustrations for the chapter on pain in the upper and lower extremities and skin problems have been extensively revised.

The text does not deal extensively with pathophysiology or therapy except in situations in which this information is particularly useful in the diagnostic process. The most useful diagnostic studies for differential diagnosis are reviewed. The text concentrates on the most likely diagnoses and common illnesses that include many serious illnesses. It also notes when the physician must rule out extremely serious diagnostic possibilities.

The format of each chapter has remained the same:

Introduction. Includes relevant definitions, as well as a list of the most common causes of the symptoms.

Nature of patient. Identifies those conditions that are most prevalent within a particular subgroup (e.g., children, elderly, premenopausal, diabetic, hypertensive, immunocompromised).

Nature of symptoms. Further identifies conditions by amplifying additional characteristics of the symptoms (how, when, where, radiation, acute/chronic, and so on).

Associated symptoms.

Precipitating and aggravating factors.

Ameliorating factors.

Physical findings.

Diagnostic studies.

Less common diagnostic considerations.

Differential diagnosis table. A concise table located at the end of each chapter summarizes the salient differential diagnostic features of the most common clinical entities that cause a particular complaint.

Selected references. Most articles represent an approach to differential diagnosis of problems rather than a review of a specific disease.

Clinicians and students may use this book for general information about the many causes of common chief complaints. They can also use it as a reference text when treating a patient who has a specific symptom (e.g., facial pain, shortness of breath, fever) when the diagnosis is not apparent.

Differential Diagnosis of Common Complaints was written to be useful. I hope you find it so . . . remember the adage, "If you don't think about it, you will never diagnose it."

Robert H. Seller

Acknowledgments

Carolyn Doueck, CGF Health Sciences Libraries, provided invaluable assistance with the literature reviews. I wish to thank my faculty colleagues at the State University of New York at Buffalo School of Medicine for reviewing each chapter.

I also wish to thank two editors at W.B. Saunders Company:
Lisette Bralow (Editor-In-Chief, Medical Books), who as acquisitions editor saw the potential of what became the first edition of this book, and
Raymond Kersey (Senior Editor), who encouraged me to write the subsequent editions.

Differential Diagnosis of Common Complaints

Contents

CHAPTER 1

Abdominal Pain in Adults

The most common causes of abdominal pain are discussed here, with special attention given to the acute abdomen and recurrent abdominal pain. The term *acute abdomen* is medical jargon that refers to any acute condition within the abdomen that requires immediate surgical attention. Acute abdominal pain may be of nonabdominal origin and does not always require surgery. The majority of patients who consult a physician for abdominal pain do not have an acute abdomen, although their chief complaint may be a sudden or acute onset of abdominal pain. In studies involving analysis of large series of patients presenting to emergency rooms with acute abdominal pain, nonspecific abdominal pain (NSAP) was the most common diagnosis. Most patients with this symptom probably have gastroenteritis.

The common causes of abdominal pain include *gastroenteritis, gastritis, peptic ulcer disease, reflux esophagitis, irritable bowel syndrome, dysmenorrhea, salpingitis, appendicitis, cholecystitis, cholelithiasis, intestinal obstruction, mesenteric adenitis, diverticulitis, pancreatitis, ureterolithiasis, incarcerated hernias, gas entrapment syndromes,* and *ischemic bowel disease* (particularly in the elderly). All these conditions can present with an acute or sudden onset of abdominal pain, many can cause recurrent abdominal pain, and a few require surgical intervention. Any acute abdominal condition requires the physician to make an early, precise diagnosis, since prognosis often depends on prompt initiation of therapy, particularly surgical treatment. The more serious the problem, the more urgent is the need for an accurate diagnosis.

The examiner can best establish a complete and accurate diagnosis by carefully noting the patient's age, gender, and past medical history; precipitating factors; location of the pain and of radiated discomfort; associated vomiting; altered bowel habits; chills and fever; and findings of the physical examination, particularly of the abdomen. **Abdominal pain without other symptoms or signs is rarely a serious problem.**

The physician must be especially aware of the conditions that cause abdominal pain and that usually require surgical intervention. According to one large study, the most common conditions requiring surgical intervention are *appendicitis, cholecystitis,* and *perforated peptic ulcer.* Others include *acute intestinal obstruction, torsion* or *perforation of a viscus, ovarian torsion, tumors, ectopic pregnancy, dissecting* or *ruptured aneurysms, mesenteric occlusion, bowel embolization,* and *bowel infarction.*

Several authors warn against the practice of "pattern matching" in the diagnosis of acute abdominal surgical conditions; they have found that typical findings occur in only 60% to 70% of patients. This means that if physicians attempt to match acute problems with patterns or stereotypes of the disease, they will fail to make the correct diagnosis in 30% to 40% of cases. Therefore, to improve diagnostic accuracy, physicians must know the standard and typical presentations and must also be aware of the subtleties involved in the differential diagnosis. The "best test" method is more accurate than "pattern matching" in establishing the diagnosis.

The "best test" method involves elicitation of specific information that correlates well with the correct diagnosis. This method suggests that when a specific symptom or physical sign is noted, its presence is highly useful in establishing the correct diagnosis. For instance, the finding of pain in the right upper quadrant (RUQ) most frequently suggests *cholecystitis.* Likewise, if pain is aggravated by movement, it most frequently indicates *appendicitis* but also suggests *perforated peptic ulcer* to a lesser degree. A "best test" question used to differentiate the most common causes of abdominal pain—NSAP and appendicitis—is whether the pain is aggravated by coughing or movement. The pain of appendicitis is aggravated by movement or coughing, whereas the pain of NSAP is not. Abdominal pain that is aggravated by movement or coughing is probably caused by peritoneal inflammation. "Best test" signs that are helpful in differential diagnosis include the presence of a *palpable mass* in diverticular disease, *hyperactive bowel sounds* in small bowel obstruction, *reduced bowel sounds* in perforation, and *involuntary guarding* in the right lower quadrant (RLQ) with appendicitis. The validity of "best test" findings has been supported by retrospective studies in which the diagnosis is known.

Nature of Patient

In elderly patients, it is often difficult for the physician to elicit an accurate description of the nature of the pain. These patients may be unable to distinguish new symptoms from preexisting complaints and concomitant illnesses. Many present late in their illnesses, often after treating themselves for indigestion or constipation. In contrast to the high frequency of appendicitis, cholecystitis, and perforated ulcers in most general surgical series, the most common causes of acute surgical abdomen in patients over 70 years of age are *strangulated hernias* (45%) and other forms of *intestinal obstruction* (25%).

The physician must remember that cancer is a common cause of abdominal pain in the elderly. In a study of patients over age 50 with NSAP, 10% had cancer. The majority of these patients with cancer had large bowel cancer. *Colonic cancer* is almost as common as perforated peptic ulcer, pancreatitis, and renal colic in patients over age 50. Cancer should be strongly suspected if the patient is older than 50 years and has had previous bouts of unexplained abdominal pain, if the present abdominal pain has lasted at least 4 days, and if constipation is present.

Elderly patients also have a higher frequency of uncommon causes of surgical abdomen, including *ruptured aortic aneurysm, acute mesenteric infarction,* and *inflammatory diverticular disease.*

The person's age also offers clues to diagnosis in other groups of patients. *Appendicitis* has its peak incidence in the second decade, although it can occur in patients older than 60 years as well as in infants. The incidence of *cholecystitis* increases with age and is the most frequent cause of acute abdominal pain in patients over 50.

Cholecystitis is more common in whites than in blacks, more prevalent in females than in males, and more common in women who take oral contraceptives or estrogens than in those who do not. Drugs that increase cholesterol saturation also increase the incidence of *cholelithiasis.* They include clofibrate (Atromid-S), conjugated estrogens, and estrogen-progestin combinations.

Nonspecific abdominal pain is an imprecise diagnosis, yet it is the most common diagnosis given to patients presenting to an emergency room with abdominal pain as their chief complaint. This diagnosis is most common in patients under the age of 40 years.

Irritable colon seems to be most common in young women, particularly those who have young children. This frequency has been attributed to the life pressures to which these women are subjected. Symptoms of irritable colon are also more frequent in others under stress, including children. The abdominal pain from an irritable colon may be a vague discomfort or pain in the lower left quadrant (LLQ), RLQ, or midabdomen. It occasionally radiates to the back. This pain may be relieved by defecation and may be associated with other well-recognized symptoms of irritable colon—mucus in the stool, constipation alternating with diarrhea, and small, marble-like stools.

Lower abdominal or pelvic pain in women is often difficult to evaluate. *Ectopic pregnancy, ovarian torsion, ruptured ovarian cyst, pelvic inflammatory disease, endometriosis,* and *mittelschmerz* must always be kept in mind. Surgical emergencies of gynecologic origin are more common in women of reproductive age and include *pelvic inflammatory disease with abscess, ectopic pregnancy, hemorrhage from an ovarian cyst,* and *adnexal* or *ovarian torsion.*

Peptic ulcer pain is most common between ages 30 and 50 years but may occur in teenagers and, rarely, in young children. It is considerably more common in men than in women. This diagnosis should not be entirely disregarded in women, however, because a significant incidence of perforated peptic ulcer among them may be a result of the physician's failure to consider peptic ulcer in the diagnosis. Although only 15% of patients with ulcer symptoms are older than 60 years, 80% of deaths from ulcers occur in this group, since ulcer disease in elderly patients is more likely to run a virulent course.

Acute intestinal obstruction occurs in all age groups. In the elderly, intestinal obstruction is usually caused by *strangulated hernias* or *cancer.* In any patient with severe abdominal pain and a history of abdominal surgery, however, adhesions are the most likely cause of intestinal obstruction.

Pancreatitis occurs most frequently in alcoholic patients and those with gallstones. *Sigmoid volvulus* is more common in males, mentally handicapped patients, and those with parkinsonism; *cecal volvulus* is more common in females. *Gallstone ileus* causes small bowel obstruction more often in the elderly and in women. *Mesenteric adenitis* is more common in children. *Peptic esophagitis* is more common in obese patients. The incidence of *diverticulitis* increases with age; this disorder is more common after age 60.

Nature of Pain

Classically, *biliary colic* develops in the evening and usually is a steady midepigastric or RUQ pain. Colicky or crampy pain that begins in the midabdomen and progresses to a constant pain in the RLQ suggests *appendicitis.* Other conditions that may begin in a crampy or colicky manner and progress to a more constant pain include *cholelithiasis* and *cholecystitis* (which tend to localize in the RUQ), *intestinal obstruction,* and *ureterolithiasis* (which involves excruciating pain that frequently radiates to the groin, testes, or medial thigh).

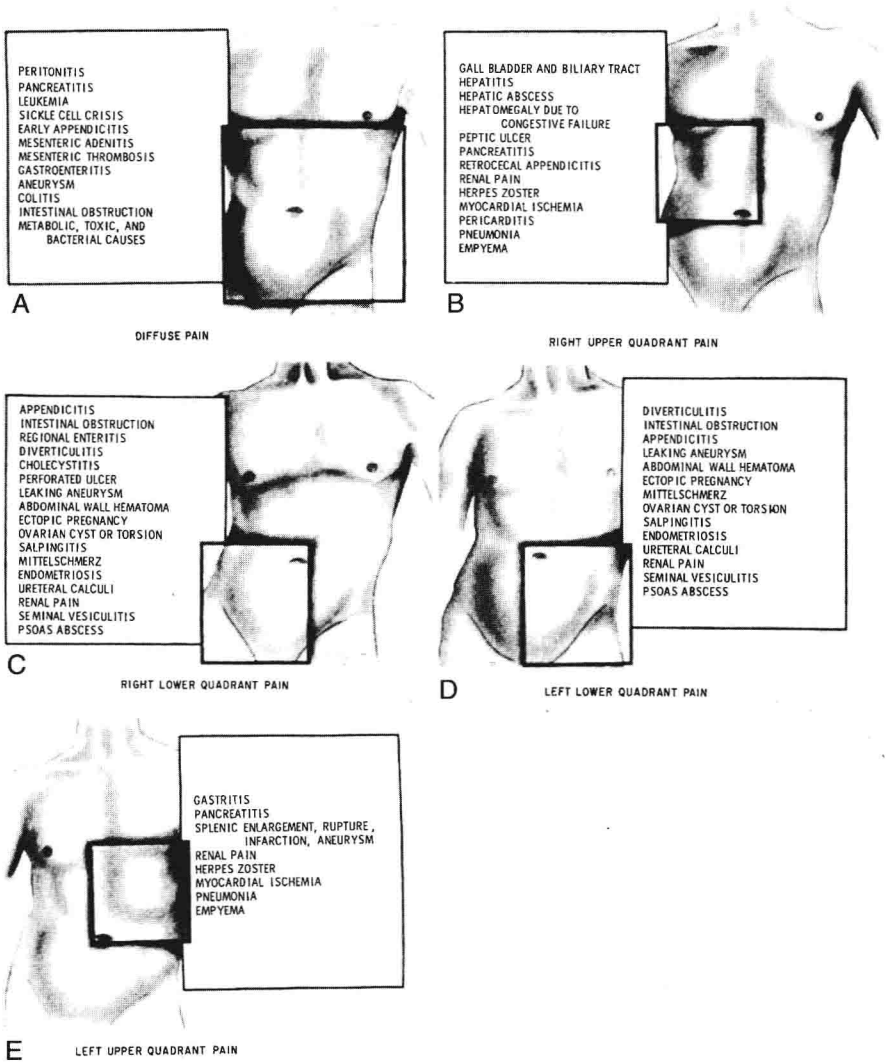
A constant, often annoying burning or gnawing pain located in the midepigastrium and occasionally associated with posterior radiation is seen with *peptic ulcer.* Peptic ulcer pain may be worse at night, although this is unusual. It is not ordinarily made worse by recumbency. The pain of peptic ulcer in elderly patients may be vague and poorly localized. Because of a lack of classic symptoms, an occasional absence of prior symptoms, and a confusing picture of abdominal pain, perforation associated with peritonitis is more common in older patients. It is particularly important to note that pain induced by percussion in the epigastrium may be the only physical finding to suggest ulcer disease in a person complaining of typical peptic ulcer pain. Likewise, severe exacerbation of pain that occurs when the physician percusses over the RUQ strongly suggests the presence of an *inflamed gallbladder.*

The diagnosis of abdominal pain caused by an *irritable colon* is fairly easy to make: the pain is usually dull, crampy, and recurrent. It is often associated with constipation that alternates with diarrhea, small stools, and mucus in the stools. In addition, moderate pain may be elicited when the physician palpates the colon. In elderly patients, however, severe diverticulitis may exist with similar symptoms.

Most abdominal pain, even when severe, usually develops over several hours. When the onset of severe abdominal pain is abrupt, it suggests *perforation, strangulation, torsion, dissecting aneurysms,* or *ureterolithiasis.* The most severe abdominal pain occurs with dissecting aneurysms and with ureterolithiasis. The pain of a dissecting aneurysm is often described as a "tearing" or "ripping" sensation and often radiates into the legs and through to the back. Patients with such pain usually present in profound shock. Individuals with the excruciating pain of ureterolithiasis may be writhing in agony but do not experience cardiovascular collapse. This pain is usually unilateral in the flank, groin, or testicle and is often associated with nausea and occasional vomiting.

Location of Pain

The location of the pain is one of the "best tests" for determination of a diagnosis (Fig. 1–1). RUQ pain is most frequently seen in *cholecystitis, cholelithiasis,* and leaking *duodenal ulcer* (Fig. 1–2). Another clue to gallbladder disease is the radiation of RUQ pain to the inferior angle of the right scapula. RUQ pain is also seen in patients with *hepatitis* or *congestive heart failure.* In the latter group the pain is thought to be caused by swelling of the liver that results in distention of



■ **Figure 1.1** Characteristic location of abdominal pain associated with various diseases. (From Schwartz S: Principles of Surgery, 2nd ed. New York, McGraw-Hill, 1974, p 972.)