

Problem-Oriented Medical Diagnosis

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Medical Diagnosis

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Medical Diagnosis

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**Little, Brown and Company
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To our parents

To the memory of
Morris and Sarah Friedman

and to
Max and Lillian Papper

Preface

The goal of medical practice is the solution of the varied problems presented by the patient. To accomplish this purpose, it is necessary to identify the patient's problems, investigate them by suitable means, arrive at a diagnosis, determine the prognosis, and institute proper treatment.

Problem identification begins with a complete history and physical examination. From the information thus obtained, it is possible to select appropriate laboratory procedures that may assist in establishing a diagnosis. Many physicians also order routinely a battery of laboratory tests for screening purposes. The findings on the history, physical examinations, and laboratory investigations provide the essential data on which the diagnosis, prognosis, and management of the patient are based.

The method of recording the medical history is a subject of much controversy today. The question of whether the traditional, chronological narrative form or the problem-oriented (Weed) system should be employed for history-taking is still being debated. However, it is hardly debatable that one of the physician's major responsibilities is to discover all the patient's problems. Such problems may present themselves as symptoms, signs, abnormal laboratory findings, or clinical diagnosis.

The purpose of this book is to provide a practical approach to many of the problems encountered in the everyday practice of adult medicine. The subjects selected for discussion were chosen because they occur frequently or because they are clinically important. It is obvious that, in a field as vast as internal medicine, a great deal of selectivity had to be exercised to keep the size of the book within reasonable limits. We recognize that some readers may disagree with our choice of subjects.

The problem list (the sections within the chapters) is composed of presenting symptoms, physical signs, selected laboratory and radiologic findings of abnormalities, and a few disease entities and symptom complexes. To deal with these problems, we have chosen academically oriented physicians who are primarily engaged in the care of patients. It is hoped that their

work will give this manual the imprimatur of both authenticity and practicality.

This book is intended for the medical student, the intern, the family practice or internal medicine resident, and the private practitioner whether he be a family physician or a general internist. It is not intended for the subspecialist in internal medicine.

Most textbooks of medicine are organized about diseases rather than patients, and properly so. However, because of that frame of reference, such books do not provide the methodology for proceeding from symptoms, signs, or abnormal laboratory findings to the diagnosis of disease. This text, by providing the diagnostic approach to presenting problems, should help to bridge the gap. It is thus intended to supplement, not to replace, conventional textbooks of medicine.

The format of the book deserves brief mention. It is written primarily in outline form for clarity and conciseness but also tries to provide a reasonable degree of comprehensiveness. Because individual contributors were permitted some latitude in dealing with the topics assigned to them, the presentations of the various problems are not uniform throughout the book. Most of the authors, however, have used the following basic format: definition of the entity, consideration of its etiology and significant clinical features, and, finally, presentation of a practical diagnostic approach to the problem. Brief interpretations of the relevant laboratory tests are also given. Discussions of pathophysiology, prognosis, and treatment have been omitted, however, not only because they are not within the scope of the book but also because this information is readily available from other sources. For similar reasons a bibliography is not included.

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1.

General Problems

Clubbing

Solomon Papper

DEFINITION

Clubbing is a condition characterized by bulbous enlargement of the distal phalanges of the fingers and toes. Hypertrophic osteoarthropathy is a more advanced stage of clubbing associated with periosteal proliferation of the long bones, often with arthralgia or joint swelling.

CLINICAL FEATURES

1. The earliest evidence of clubbing is thickening of the nail bed, manifested by increased ballotability of the nail in its bed and a straightening (increase) in the angle made by the nail and the dorsum of the distal phalanx. (The normal angle is about 160° .) Later there may be warmth and redness and sometimes tenderness of the skin of the distal phalanges. Sometimes the patient has a burning sensation in the affected areas, but pain is uncommon. Exaggeration of the curvature of the nail is not clubbing but a normal variant.
2. When the periosteum of the long bones is involved, there may be pain near the joints as well as redness, warmth, and tenderness.
3. The joints adjacent to long bone involvement may be swollen.
4. Early the x-rays are normal. Later there is flaring of the ungual process and demineralization. The long bones may reveal periosteal thickening, especially near the joints.

DIFFERENTIAL DIAGNOSIS

In some patients joint symptoms predominate and may be confused with arthritis. When there is superficial warmth, redness, and tenderness about the ankle, thrombophlebitis or cellulitis may be considered.

ASSOCIATED CONDITIONS

1. Clubbing may be hereditary and not associated with any disease state.
2. Pulmonary disease.
 - a. Bronchogenic carcinoma (rare with metastatic lung tumor).
 - b. Pleural neoplasms.
 - c. Chronic infections other than tuberculosis (e.g., bronchiectasis, abscess, empyema).
 - d. Emphysema with cor pulmonale.
 - e. Mediastinal lesions.
3. Cardiac disorders.
 - a. Cyanotic congenital heart disease.
 - b. Infective endocarditis.
 - c. Pulmonary arteriovenous fistula.
4. Chronic liver disease: cirrhosis.
5. Gastrointestinal disorders.
 - a. Ulcerative colitis.
 - b. Granulomatous colitis.
 - c. Regional enteritis.
 - d. Neoplasms.
 - e. Steatorrhea of unknown cause.
6. Hyperthyroidism.
7. Unilateral clubbing is usually due to local vascular disease (e.g., anomalies of the aortic arch, aortic or subclavian aneurysm, pulmonary hypertension with persistent patency of the ductus arteriosus).

DIAGNOSTIC APPROACH TO BILATERAL CLUBBING

History

A family history of clubbing and long duration of clubbing without evidence of associated illness suggest that it is of the hereditary type. Specific history information related to associated illnesses should be sought: cough, dyspnea, cigarette smoking, cyanosis, fever, jaundice, alcoholism, diarrhea, and tremulousness.

Physical Examination

Specific points related to associated illness should be sought: wheezes, rales, supraclavicular nodes, murmurs, jaundice, vascular spiders, palmar erythema, enlarged liver, abdominal mass (regional enteritis), thyromegaly, and thyroid eye signs.

Laboratory Studies

1. CBC.
2. Urinalysis.
3. Chest films.
4. Electrocardiogram.
5. Liver function tests.
6. T_4 and T_3 resin uptake.
7. Stools for occult blood.
8. Sigmoidoscopy, barium enema, and upper GI and small bowel study if the history suggests gastrointestinal disease or if stools are positive for blood.

Edema

Solomon Papper

DEFINITION

Edema is an increase in the volume of interstitial fluid, i.e., the extravascular portion of the extracellular compartment. The plasma volume may or may not be increased.

DIAGNOSIS

There may be a considerable increase in the interstitial fluid volume before it is clinically appreciated. The symptoms and signs of edema are unexplained weight gain, tightness of a ring or shoe, puffiness of the face, swollen extremities, enlarged abdominal girth, and persistence of indentation of the skin following pressure.

ETIOLOGY

Localized Edema

This term usually refers to edema produced by regional obstruction to venous or lymphatic flow, or both. It is usually limited to one or two limbs. Ex-