Chamberlain's
Symptoms and Signs in Clinical Medicine

AN INTRODUCTION TO MEDICAL DIAGNOSIS

TENTH EDITION

Colin Ogilvie MD, FRCP

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Preface to the tenth edition

It is fitting that the preface to the tenth edition should open with a tribute to the founder of this book, Dr E. Noble Chamberlain, who died in 1974. During the years we worked together on previous editions, I gained much from his knowledge, wisdom and friendship and greatly admired the skill and clarity of his writing. To follow him is not easy but to do so is an honour.

Advances in clinical science and changes in the patterns of disease have necessitated the inclusion of much new material. To make way for these additions, the chapters dealing with the history of medicine, radiology and chemical pathology have now been omitted. This is not to decry but rather to acknowledge the increasing importance of these subjects, and to recognize that they can no longer be encompassed within a book the purpose of which is to describe the symptoms and signs of disease. Relevant illustrations and references to these subjects have been retained and, where necessary, amplified throughout the remainder of the book.

Three new chapters have been written for this edition. Professor Frank Harris, Professor of Child Health in the University of Liverpool, contributes a chapter on the examination of sick children and Professor Herbert Gilles, Dean of the Liverpool School of Tropical Medicine, writes about the clinical features of some common tropical diseases which, with the great increase in air travel, may now present in any part of the world. To both these distinguished authors I am deeply indebted.

The third chapter deals with the case records. The need for this arises from the amount and complexity of the data which now accumulate in the patient's dossier. A careful system of recording is required if the clinician is not to lose sight of the problems actually confronting the patient who consults him.

The two chapters on the nervous system are now redrafted as a single chapter in which the order of examination has been brought into line with current practice.

The remainder of the book has been thoroughly revised with the help of my friends and colleagues. For this help, I am particularly grateful to Professor Alastair Bellingham (Blood Diseases), Dr Michael Bone (Renal and Urinary System), Dr Norman Coulshed (Cardiovascular System), Dr Collin Davis (Endocrine System), Dr Michael Hayward (Nervous System), Dr Robin Walker (Digestive System) and Dr Emlyn Williams (Skeletal System).

There are 130 new illustrations and many of the original ones have been replaced although several old favourites, despite dated hair styles, are retained. For the new illustrations, I am indebted to those colleagues who helped with the revision of the book and also to Dr Susan Evans and Dr William Tyldesley. Dr Norman Coulshed has given most generously of his time to select and describe a completely new set of cardiographic tracings for Chapter 7.

The publishers have brought this book safely through to a tenth edition over a period spanning more than 40 years. I would like to acknowledge the courtesy and kindness which I have received from John Wright & Sons during the fifteen years of our association and also to thank Dr D. Emerson, the senior editor, and Mr G. A. Moore for their invaluable help and advice in the preparation of the present edition.

C. O.

From the preface to the first edition

When the student first enters hospital he is initiated into the art of medicine, as distinct from the purer sciences of anatomy and physiology with which he has become familiar. He must learn to obtain from the patient an accurate history of his illness, and be able to appreciate the significance of his symptoms. He must master the technique of medical examination and of eliciting physical signs. The interpretation of these signs, and their correlation with the symptoms, is the basis of diagnosis. It is the object of this book primarily to help the student in this difficult intermediary period in which he is first introduced to the practice of his art, and to help the practitioner who wishes to refresh his memory.

As the title implies, an account has been given of the common symptoms and physical signs of disease, but since his student days the author has felt that these are often wrongly described divorced from diagnosis. An attempt has been made, therefore, to take the student a stage further to the visualization of symptoms and signs as forming a clinical picture of some pathological process. In each chapter some of the commoner or more important diseases have been included to illustrate how symptoms and signs are pieced together in the jig-saw puzzle of diagnosis.

In most chapters brief mention has been made of those special methods of laboratory or instrumental investigations which in modern medicine are usually necessary for a full and accurate diagnosis. A rightful place of importance has been given to physical signs that are demonstrated by the use of the unaided senses, but when the special investigations, as occasionally happens, are of more value than the physical signs this has been pointed out. The technique of these special investigations finds no place here, but those simple laboratory and instrumental procedures, such as lumbar punctures, blood-counts, urine examinations, and so forth, which are generally carried out in the ward or clinic room, have been gathered together in two separate chapters for ease of reference.

In writing this book many standard textbooks and monographs have been consulted, and free acknowledgement is made to these sources, which are too numerous to be mentioned by name. In the hope of avoiding the undue influence of particular works, each chapter was written before any book was consulted. In the same way, after each chapter had taken shape, certain of them were submitted to colleagues who had a special interest in the subject discussed.

E. NOBLE CHAMBERLAIN

Liverpool,
March 1936

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Chapter one *The history and general principles of examination*

INTRODUCTION: THE STUDENT'S APPROACH TO THE PATIENT

It is natural for the student to be apprehensive when first approaching a patient. He fears that sick people will not welcome a nervous and clumsy beginner and that he can be of no help to them. This is the time for him to remember that many patients find comfort in the knowledge that their own suffering may serve, through the observations of students, to ease the burden of those who follow, perhaps even their own children. But the student has more than this to offer the patient. He can be a 'friend at court', a messenger between the fearful patient and the awesome doctor. Time and again, students have discovered facts vital to diagnosis or management that had previously been withheld because of the patient's fear, the doctor's haste or the forbidding retinue that accompanies the physician on his round. The student should approach his patient with humility and gratitude, but also with quiet confidence and pride in the responsibility which will be his for the remainder of his life.

Clinical medicine is above all a matter of communication between people, and the quality of the student's relationship with patients and colleagues could decide his success or failure as a physician. It is no exaggeration to say that even facial expression, tone of voice and manner of movement can all affect the ability to elicit the patient's story and to lead him back to health. For it is in such outward signs that we display those attitudes of mind—impatience, boredom, embarrassment, disbelief and reproach—which act as a barrier to communication with others. In the presence of his patient the student must master his emotions, clear his mind of distracting thoughts and avoid all appearances of haste. His manner should be alert and attentive, yet gentle and sympathetic. Without these qualities, he will neither obtain the facts needed for diagnosis nor effectively convey the advice essential to management.

Before confronting the patient, the student must not only have composed his own attitude but he should also have anticipated, so far as possible, the likely attitude of the particular patient he has come to see. He must be ready for the resigned and sometimes resentful manner of the patient with chronic incurable disease, the frightened questioning from those with recent alarming symptoms, the desperate pleading of the patient in acute pain, the inattention and unresponsiveness of the seriously ill. He must also adapt himself to the patient's ethnic, social, educational and intellectual background and use forms of speech which he can understand.

Whether in a hospital ward or the patient's home, it is wise to speak first to those who are looking after the patient. The nurse or relative in charge will indicate whether the patient is available for examination. So far as possible, patients should

not be disturbed during meal times, when they have visitors or while they are undergoing diagnostic or therapeutic procedures. The attendant will also be able to say whether, because of the patient's present mental or physical state, any special precautions are needed. The student can thus be forewarned of language difficulty, emotional traits or any defects of memory, concentration, hearing or speech which might call for some modification of his approach.

Before attempting to obtain a formal clinical history, the student should introduce himself and ask if he may put some questions about the illness which took the patient to his doctor. He should then make sure that the patient is as free as possible of any immediate physical or mental discomfort. Except in urgent cases, it is preferable to postpone the interview than to try to elicit the history of a patient who is drowsy from drugs, or feeling sick, or wanting to visit the toilet. In general, it is best to interview the patient alone and to call later upon a relative for information which is not obtainable from the patient. When it comes to the physical examination, an attendant should be present to help the patient undress or change position or, where appropriate, to act as chaperone.

HISTORY AND EXAMINATION

For the investigation of a medical case, the student must develop a definite system of history recording and examination, which should be carried out in a routine fashion to save time and to ensure that no important data are omitted. In time, this routine becomes a habit in his professional life, a habit which must be cultivated assiduously. No book can do more than assist in this: the habit can only come by constant practice in dealing with sick persons.

The ultimate object of the history and examination is *diagnosis* (Gr. *διά*, through + *γνῶσις*, knowledge). Without diagnosis there can be no satisfactory *prognosis* (Gr. *πρό*, before + *γνῶσις*, knowledge), or treatment, and the diagnosis depends on a well-balanced judgement of all the facts relating to the case.

These facts fall into four groups: (1) The present symptoms; (2) The antecedent history, personal and familial; (3) The physical signs; (4) The special investigations. Sometimes the diagnosis depends chiefly on one of these, but all must be considered in conjunction before a diagnosis is made.

THE SYMPTOMS These are *subjective* disturbances which arise from disease—causing the patient to appreciate that he is not well. An account of them is obtained by taking a history of the present condition.

THE ANTECEDENT HISTORY This reveals facts in the patient's personal life or in those of his near relatives which may have a direct bearing on the problem under consideration.

THE PHYSICAL SIGNS These are *objective* marks of disease appreciated by the trained observer using his senses, generally unaided, though the aid of the stethoscope is usually allowed under this definition.

THE SPECIAL INVESTIGATIONS This term is used in the present book to include various accessory methods of examination requiring special apparatus, e.g. biochemistry, radiography, microscopy and electrocardiography. These special investigations are an integral part of medical examinations, and in some cases

diagnosis is impossible without them. The significance of these investigations is noted in the appropriate chapter.

When the facts of the case have been gathered together, the final stage is reached, that of *diagnosis*.

A complete diagnosis includes an accurate idea of the anatomical localization of the disease and an understanding of the type of pathological process that is at work. It should also give an impression of the activity of the disease, whether this is stationary as in old healed lesions, or progressing slowly or rapidly. These facts cannot always be elicited, but an attempt must be made to make the diagnosis as comprehensive as possible, both in anatomical, physiological, pathological and aetiological detail. The functional effects must also be assessed, as in the degree of renal failure in various forms of renal disease.

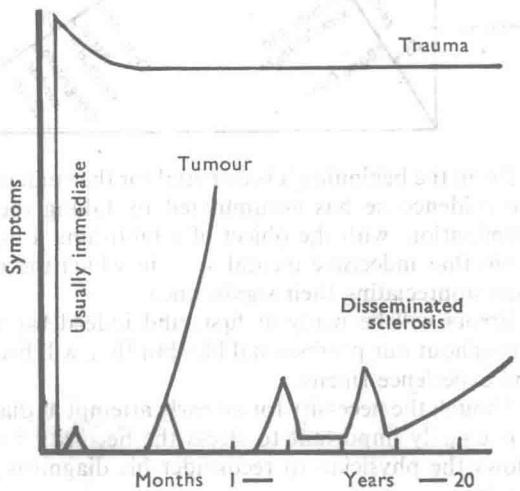

Fig. 1.1 Time factor in development of spinal cord symptoms.

A good example of these facets of diagnosis is seen in heart valve disease, for not only must the valve affected be known, but whether it is damaged by rheumatic disease, syphilis or bacterial infection, and whether these processes are actively present, or past and healed. A case of mitral stenosis may be free of symptoms: another may have severe congestive cardiac failure, i.e. the function of the heart is grossly disturbed by the valve lesion, yet the physical signs may be somewhat alike. Similarly, description of a lesion such as paraplegia must be amplified when possible by indicating the cause, e.g. compression paraplegia due to tumour which slowly produces its effects, or a sudden paraplegia the result of spinal cord (medulla) haemorrhage or injury. These features are exemplified in *Fig.* 1.1. A contrast is made between the sudden effects of trauma, the course over months generally taken by a tumour, and the intermittent pattern of disseminated sclerosis over many years.

It is also important to recognize that structural changes may exist without functional derangement, and vice versa. Thus certain congenital abnormalities of the heart are consistent with normal function, e.g. patent ductus arteriosus, whilst in some abnormal rhythms of the heart, e.g. paroxysmal tachycardia, function may be disturbed without any gross underlying structural change. Some diseases are essentially betrayed by symptoms, e.g. migraine, while others, such as achondroplasia,

depend entirely on physical signs for their recognition. In many, both symptoms and signs may be present but at different stages of the disease, cf. mitral stenosis and Paget's disease of bone (*Fig.* 1.2).

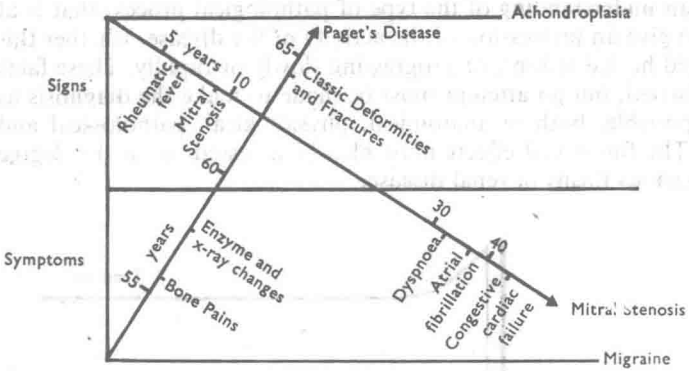

Fig. 1.2 The progress of symptoms compared with signs.

From the beginning it is essential for the student to train himself to piece together the evidence he has accumulated by taking the history and making a physical examination, with the object of establishing a diagnosis. Only in this way will he avoid that indecisive mental state in which the multiplicity of facts prevents him from appreciating their significance.

Errors will be many at first, and indeed for most of us continue to be made throughout our professional life, but they will become fewer as judgement matures and experience ripens.

Though the necessity for an early attempt at diagnosis has been emphasized here, it is equally important to stress the necessity for that receptivity of mind which allows the physician to reconsider his diagnosis, should fresh evidence be forthcoming.

In subsequent chapters of this book, an attempt has been made to describe briefly the symptoms and physical signs of disease, with illustrative examples in each system of the way in which they are employed to make a diagnosis. Variations from this general scheme have been necessary occasionally, notably in Chapter 3, dealing with the external manifestations of disease, and in Chapter 12, dealing with fever.

In the present chapter, the important subjects of history-taking and the physical examination of the patient are discussed.

THE PATIENT'S SYMPTOMS AND HISTORY

To take a good history requires as much or more skill than the subsequent physical examination, and accuracy and patience are usually well rewarded by the diagnostic value of the data obtained.

Difficulties arise when the patient's intellectual level is low and he is unable to grasp the meaning of the questions, but experience soon teaches the doctor to formulate his questions in a manner suitable to each patient's intelligence.

Likewise it is necessary to learn how to appraise the value of the symptoms or details of personal or family life given by the patient, who, on the one hand, may

wish to conceal or minimize the significance of these, or, on the other, to exaggerate them. The patient who is afraid he may lose his job will naturally make light of his condition, while one hoping for compensation will magnify it only too clearly. We must always be tolerant towards the natural reserve which certain persons show when details of their personal or family life are required. To us these details may appear commonplace, but to the patient they are intimate and therefore not always given without reluctance to a stranger. It is wise to ask, first, questions which will cause no embarrassment, leaving questions of a more delicate nature until the patient's confidence has been secured. Patience is necessary when the patient tries to make his own diagnosis. This may be irritating, but not unreasonable as it stems from a natural desire to find a cause for the illness which perhaps can be avoided in future. The cause which the patient assigns may be clearly impossible, but unless a hearing is given without undue interruption, some valuable clue may be missed. Wisdom is necessary to decide if it is justifiable to curb a loquacious patient.

The individual physician, in the course of practice, usually develops a particular scheme of questioning and examination which to him seems most appropriate. Most schemes follow similar lines: the one below embodies the general principles involved.

The History

Complaint	
HPC	History of the present complaint
PH	Past history
SH	Social history
FH	Family history
PsyH	Psychiatric history

The Complaint: The Patient's Description of his Present Symptoms

It is most advisable to allow the patient to express his symptoms in his own words and to give him ample opportunity to reveal all the symptoms, whether they be physical or apparently psychological. The intelligent patient may, in a few minutes, give a history pointing conclusively to the system or systems involved. Others, of less education, are unable to describe the nature of their complaint without help from the examiner in the form of simple questions.

One patient may complain of a constricting pain in the upper part of the chest, which spreads to the left arm and occurs during effort, thus providing by the history alone strong diagnostic evidence of the cardiac origin of his pain. Another with 'pain in the stomach' may be unable to describe its character until a choice of such terms as 'griping', 'cutting', 'burning', 'sharp', etc. is offered to him, and he is uncertain as to its position until asked to point to any places where it has been felt (*Fig.* 1.3).

As knowledge increases more information may be derived from the history. It is recognized, for example, in a certain rare disease that attacks of faintness relieved by food may suggest over-secretion of insulin by a tumour of the islets of Langerhans, yet no abnormal physical signs are found and only special investigations (blood sugar estimations) prove the diagnosis.

For much longer the common disease diabetes mellitus has been recognized in which thirst, polyuria and loss of weight appear together, but until Matthew Dobson, in the eighteenth century, tasted the sweetness of the urine in such cases, the cardinal sign—glycosuria—was missed.