

THE
DYSENTERIC
DISORDERS

PHILIP
MANSON-BAHR

SECOND EDITION

CASELL

THE Dysenteric Disorders

*The Diagnosis and Treatment
of Dysentery, Sprue, Colitis and other Diarrhæas
in General Practice*

By

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2nd Edition
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WITH AN APPENDIX

by

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Technical Assistant

*With 9 Colour, and 14 Black and White
Plates, and 108 Illustrations in the Text*

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PREFACE TO THE FIRST EDITION

“Behold, O Lord, for I am in distress, my bowels are troubled.”

Lamentations, i, 20.

“My liver is poured upon the earth.”

Lamentations, ii, 11.

DURING the last thirty years it has become more generally recognized that many forms of disease of the bowels exist and are caused by entirely different agents, although the outward signs and symptoms may closely resemble one another.

Many of the organisms responsible have now been classified and studied extensively; their life-histories have been worked out and therapeutic agents which act directly upon them discovered. The present is therefore an opportune occasion to digest and review the existing knowledge on the dysenteric diseases and to assess in some measure the value of the different forms of treatment which have been elaborated.

It is felt that there is a real need for a comprehensive account of the dysenteries, the various forms of colitis, sprue, helminthic diseases, and the different diarrhœas which form such a complex assembly in general and consulting practice. In addition to dysenteries, there are many affections of the colon—the various and enigmatical forms of colitis, by no means peculiar to warm countries—which bulk largely in practice and upon which a great deal of more accurate information is much to be desired.

It is with the aim of stimulating research upon these unsolved problems and with the idea of utilizing the comparative method of study—comparing the known with the unknown—that this work has been taken in hand. Much of the information which is made available in this book exists already widely scattered throughout the literature.

The differential diagnosis of the various forms of colitis from the better known forms of dysentery is one which confronts the practitioner in the tropics almost daily; but it is necessary to state that this book, although it embraces a number of conditions which are generally regarded as “tropical,” has not been undertaken solely from that specialized viewpoint; rather has it been written from the standpoint of general medicine. In hardly any

other branch of the medical art are the niceties of differential diagnosis so important. It is, for instance, a gross error to diagnose and treat acute bacillary dysentery, or acute colitis, as intestinal amœbiasis, and therefore to inject large doses of emetine—a particularly toxic drug.

Having been engaged more or less continuously for over thirty years in the study of this subject from the bacteriological, pathological and clinical aspects, I have drawn largely from my own records; indeed I have endeavoured to make this book the outcome of a life's study. As an example, the numbers of cases studied at the Hospital for Tropical Diseases in the preparation of the clinical section of this work are as follows:—

Chronic bacillary dysentery	107	
Amœbic dysentery (definitely diagnosed)	535	
Sprue	423	(males 265,
Ulcerative colitis	42	females 158)
Polypus	14	
Polyposis	4	
Mucous colitis	116	
Intestinal tuberculosis	13	
Intestinal bilharziasis	15	
Gall-bladder diseases	30	
Duodenal ulcer	40	
Appendicitis	73	
Diverticulitis	17	
Gastric ulcer	12	

The more technical aspects, the zoological description of the intestinal protozoa and bacteria, the methods employed in their cultivation and recognition, and various other details are gathered together in the form of an appendix, in the compilation of which I have received the loyal co-operation of my friend and Technical Assistant, Mr. W. J. Muggleton, with whom I have been closely associated for the past twenty-eight years.

My best thanks are also due to Drs. W. E. Cooke, F.R.C.S.I., and J. N. Strauss, M.R.C.P., for many kindly suggestions in the preparation of this work.

PHILIP MANSON-BAHR.

149, Harley Street,
London, W.1.
January, 1939.

PREFACE TO THE SECOND EDITION

SINCE the publication of this work three years ago serious and vital events have taken place which have disturbed and too often barbarously checked the ordered progress of scientific thought and work. Though the horrors of mechanised warfare have changed the tenets and habits of men, they have in no way altered the inherent nature of pathogenic organisms and the ravages of disease. These remain, as ever, inevitable accompaniments of war and a menace to mankind, so that it is only reasonable to expect that dysenteric conditions will play as great a part in the outcome of this world conflict as they did in the similar catastrophe a quarter of a century ago.

As I have been actively engaged in the investigation and treatment of the dysenteries since 1909, it fell to my lot to benefit by an unexampled experience of these diseases in the Middle East during the whole period of the last war. The results of these laboratory investigations and their clinical application in times of war and peace, set forth in these pages, were prefaced by special researches undertaken on dysentery and sprue in Fiji and Ceylon during the years 1909-1913.

Though no vital alterations have been made in the general arrangement of the book, mention is made of the many improvements effected in treatment, especially the introduction of sulphaguanidine in bacillary dysentery. In view of the recent new light on the ætiology of the sprue syndrome and the relationship of this interesting symptom-complex to the steatorrhœas and fat absorption, a new chapter on pellagra has been inserted, a better understanding of the complexities of this nutritional disorder having shed much light upon the group of diseases with which it has many aspects in common.

The demand for this second edition has been evoked by the present cataclysm as well as by the necessity of including many advances in ætiology, diagnosis and treatment which in the interval have become available. It is hoped that, by their timely publication in an easily-assimilable form, the volume may become helpful to all in the armed forces or medical services at home or abroad who may be called upon to treat the many varied and puzzling phases of the dysenteric disorders. With this end in view I have tried by every means in my power to make this revision as complete as possible. In so doing I have been encouraged by the generous reception afforded by the profession to the first edition of the work.

PHILIP MANSON-BAHR.

INTRODUCTION

BY J. JOHNSTON ABRAHAM, C.B.E., D.S.O., F.R.C.S.

Author of "The Surgeon's Log," etc.

THIS is a book that needed to be written, and the wonder is that such a work had not been attempted before. Probably the reason is that it required an experience both of European and tropical diseases of the alimentary tract such as few possess, coupled with an industry in collecting and tabulating what has been written on the subject in scattered papers in several languages that would daunt all but the most intrepid. Dr. Manson-Bahr possesses both the experience and the courage to tackle this task. He has done so in the book before us, and the profession accordingly owes him a debt of gratitude.

The history of the differentiation of the dysenteries is an important one. The dysentery amœba was discovered by Lösch in 1875; and the dysentery bacillus by Shiga in 1898. This time-lag has been unfortunate, since it has produced a general belief in the minds of many that all dysenteries in the tropics must be amœbic, while it is still not fully recognized that bacillary dysentery is of the two the more widespread and important.

This was especially so in the Great War. It was bacillary dysentery and not the Turk that drove us out of Gallipoli. With proper precautions we should never have had an epidemic of dysentery there, for the disease is a fly-borne one, as Manson-Bahr proved in Fiji in 1911. To make things worse, the outbreak in Gallipoli was treated as amœbic dysentery, with disastrous results, many lives being lost through this diagnostic blunder. It is a distressing thought upon which one does not care to dwell.

Luckily, by the time the remnants of the troops came back to Egypt, the mistake had been discovered, and throughout the Sinai campaign the elaborate precautions taken to prevent fly-breeding protected the great base camps from any further outbreak. This was a very remarkable feat when one considers that at Kantara on the Suez Canal there were one hundred and twenty thousand men with no sanitation except field latrines, and that British, Colonial, Indian and European troops were all camping

alongside one another. None the less, the military mind still clung to the idea that amœbic dysentery would be found endemic in Indian troops, and all sorts of absurd regulations were made about hospital trains and every difficulty put in the way of transporting troops through Italy to the Western front.

A knowledge of the dysenteries is of increasingly great diagnostic importance to all practitioners of medicine both at home and in the tropics. For, as the time-distance between countries decreases and people travel more and more, the risk of infection mathematically increases, and we may expect to see more and more diseases, once confined to the tropics, in every-day practice in Europe.

There is, however, no likelihood of amœbic dysentery ever becoming endemic in the British Isles, owing to the excellence of our sanitary arrangements, but a knowledge of the dysenteries is essential if one is to understand the extent and treatment of colitis, enteritis and other similar abdominal diseases, and the wonders that can be done by the proper utilization of the modern drugs now at our disposal should be familiar to all.

Dr. Manson-Bahr's treatise is a mine of information on these subjects.

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DYSENTERIC DISORDERS

CHAPTER I

METHOD OF PROCEDURE IN INVESTIGATING A CASE OF DIARRHŒA OR DYSENTERY

IN the complete investigation of the causes of acute and chronic diarrhœa and the many diverse conditions which border upon dysenteric disorders, it is necessary to bring into play most of the resources at the disposal of the modern physician ; elucidation of a case, therefore, requires an extensive knowledge of medicine in general.

In Table I will be found a list of the known causes of diarrhœa in adults and children, but to describe all these *in extenso* would entail the compilation of a complete medical textbook. This is far from being the object of the table, which is designed as a means of conveying to practitioner and student the wide range of the subject, and of suggesting details to which his special attention should be directed. In Table II are classified the different steps, in due order, which should be undertaken in the investigation of a patient suffering from diarrhœa or dysentery.

The special diseases with which this book deals are those which, in some form or other, fall into the dysenteric syndrome, and these demand special laboratory methods to establish a diagnosis. The main interest of the book centres round the subject of the dysenteries and colitis, and within it diagnosis and treatment are handled at some length with the idea of assisting the specialist, practitioner and student to obtain an insight into an admittedly complex subject.

TABLE I

CLASSIFICATION OF THE CAUSES OF DIARRHŒA

IN ADULTS

Primary diarrhœa.

Diet.

Constipation.

Changes of climate, or weather.

Irritants taken with food—mushrooms, mercury, arsenic, or ptomaine poisoning.

Alterations of intestinal secretion or absorption.

Acute and chronic dyspepsia (gastrogenous), pancreatogenous diarrhœa, cholecystitis.

Idiopathic steatorrhœa (cœliac disease), non-tropical and tropical sprue, hill diarrhœa.

Nervous diarrhœa.

Secondary diarrhœa. Infective conditions.Typhoid and paratyphoid fevers (*Salmonella* group).

Bacillary dysentery—Shiga, Schmitz, Flexner and Sonne infections.

Cholera.

Gærtner and Aertrycke infections.

Amœbiasis and amœbic dysentery, balantidiasis, giardiasis, flagellate diarrhœa, coccidiosis, malarial dysentery, leishmanial dysentery.

Trichinosis, bilharziasis, fasciolopsis, heterophyes and other worm infections.

General infections.

Endocarditis, septicæmia and pulmonary tuberculosis.

Diseases of intestines.

Carcinoma.

Tuberculosis.

Syphilis.

Actinomycosis.

Diverticulitis.

Chronic cicatrizing enteritis (Crohn's disease).

Peritonitis.

Appendicitis.

Hæmorrhoids.

Blood diseases.

Henoch's and other forms of purpura.

Chronic circulatory disturbance.

Portal congestion.

Cirrhosis of the liver.

Chronic heart and lung disease.

Toxic.

Hyperthyroidism (thyrotoxicosis).

Chronic alcoholism.

Uræmia.

Lardaceous disease.

Avitaminosis.

Pellagra and prepellagrous conditions.

Special types of diarrhœa.

Ulcerative colitis.

Muco-membranous colitis.

Polyposis.

Polypus.

Stereoral ulceration.

Foreign body in rectum.

IN CHILDREN

Diarrhœa and vomiting (summer diarrhœa).

Simple diarrhœa from chills and errors in diet.

Acute gastro-enteritis, summer diarrhœa, bacillary dysentery—Shiga, Flexner, or Sonne infection.

Amœbic dysentery.

Coeliac disease.

Intussusception.

Polypus.

TABLE II

METHOD OF PROCEDURE IN THE INVESTIGATION OF A PATIENT SUFFERING FROM DIARRHŒA*

1. History.

Features in history indicating possible causes.

Sharpness of onset or chronicity.

Dietetic habits.

Previous residence in the tropics, noting particularly geographical distribution of intestinal disease.

Liability to chills.

2. General Examination.—Paying special attention to :—

(a) *Skin*. Petechiæ (septic endocarditis).

Texture (endocrine disease).

Pigmentation (kala-azar, Addison's disease, arsenic, etc.).

(b) *Neck*. Thyroid (hyper- or hypothyroidism).

(c) *Lungs*. Tuberculosis, compression signs as in amœbic abscess of liver, pulmonary abscess.

(d) *Cardio-vascular*. Congestion, septic endocarditis.

(e) *Tongue*. Sprue, pellagra, idiopathic steatorrhœa, syphilis, gastro-genous diarrhœa.

(f) *Central Nervous System*. Lesions causing incontinence—e.g. tabes, etc.

(g) *Glands*. Inguinal bubo: if suggestive, Frei-Hoffmann test in lymphogranuloma, leukæmia.

(h) *Abdomen*. Palpation.

Masses—carcinoma of colon, diverticulitis, bilharziasis, amœbiasis, tuberculoma, actinomycosis, intussusception.

Doughy (tuberculosis)—sprue or steatorrhœa.

Enlarged spleen or liver—cirrhosis, carcinoma, malaria, leukæmia, etc.

3. Digital rectal examination.

Carcinoma, piles, stricture; "velvety" feel of ulcerative colitis, chronic rectal amœbic ulcer; stricture of lymphogranuloma.

Fæcal impaction.

4. Stool examination.—(3 stools should be examined if possible)

(a) Naked-eye appearance—Dysenteries, sprue. (If suggestive:—then fat analysis, occult blood, test meal, glucose curves.)

(b) Helminth eggs. Bilharzia, ancylostoma, falseciolopsis, heterophyes, etc.

(c) Protozoa. Amœbæ, balantidium, giardia, coccidium, etc.

(d) Charcot-Leyden crystals.

5. Blood examination.

Count :—sprue anæmia.

Parasites :—malaria.

Serum agglutination :—against dysenteries and the Salmonella group.

Leucocyte count and differential count: of value in amœbiasis and tuberculosis. Eosinophilia in trichinosis, bilharziasis, etc.

* This is to be considered as a mere outline containing points which a practitioner should bear in mind on approaching a case.

6. **Urine.**—Casts, etc.—uræmia. (If suggestive, blood urea.) Porphyrinuria in pellagra and sprue.
7. **Wassermann.**—Tabes. Rectal stricture.
8. **Sigmoidoscopy.**—Numerous lesions diagnosed thereby :—dysenteries, carcinoma, polypus and polyposis, ulcerative colitis, etc.
9. **Barium enema.**—Growths, colitis of different kinds.
- 10 **Barium meal.**—Appendicitis, diverticulitis, stenosis, stricture, tumour, regional ileitis (Crohn's disease).

There are dysenteriform diseases in which the clinical picture is so striking that they may almost be diagnosed at sight : there are others in which prolonged laboratory investigations must be undertaken before an exact diagnosis is possible.

In many instances, from the actual physical examination and appearances of the patient no positive information can be elicited. This is often the case in amœbiasis and in the milder forms of bacillary dysentery. Special attention must be paid to the presence or absence of wasting and to the general appearance of the abdomen, whether sunken, navicular, swollen or turgid.

Other important points in the examination of the abdomen are the presence or absence of meteorism, areas of tenderness discovered on deep pressure, a sensation of spasticity of the colon, or actual thickening of its walls. The size and consistency of the liver discovered by deep percussion or palpation are important, as is also discomfort directed towards the gall-bladder. The colouring and general features of the complexion and texture of the skin must also be noted.

After the physical examination of the patient comes the positive information derived by proctoscopy or sigmoidoscopy, by which means a view of the mucous membrane may be obtained. At the same time the all-important microscopical examination of the fæces must be undertaken—an extensive and specialized subject—the presence or absence of inflammatory cells and blood and the character of the non-digested contents being duly noted. The search for intestinal protozoa or the eggs of helminths should be carried out with a comparatively low-power lens (i.e. $\frac{1}{6}$) before proceeding to the more elaborate bacteriological culture of the stools.

Finally, with a due sense of proportion as to the value of information thus obtained, the radioscopic examination of the bowel should be conducted. Probably much more accurate knowledge is vouchsafed by a *barium enema*, in studying the outline of the colon movements and texture than from a *barium meal*, and here the newer methods of air inflation with measured doses constitute a more valuable aid than the older measures of mass infiltration.

Biochemical methods may have to be invoked. The fractional test meal, van den Bergh reaction of the serum, and the sugar-tolerance tests have each their appropriate place.

Thus in the full elucidation of a case of dysenteric disease, or of chronic diarrhœa, nearly all the ancillaries of medical practice may be called upon in their appropriate sphere. Many of these methods are not readily available to the general physician, and therefore every effort is made in this book to guide him in the simpler means of investigation which actually still remain of most value, and which are always at his command.