MEDICINE

ESSENTIALS FOR PRACTITIONERS AND STUDENTS

By

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PREFACE TO THE SEVENTH EDITION

In preparing this, the seventh, edition I have subjected the book to a thorough revision in order to include the many advances made in medicine during the past four years.

New articles have been written on the following subjects: Behçet's syndrome, gastric diverticula, the dumping syndrome, carcinoid tumours of the intestine, steatorrhœa, proctalgia fugax, thrombosis of the hepatic veins, post-necrotic hepatic cirrhosis, constitutional hyperbilirubinæmia, hepatic coma, the post-cholecystectomy syndrome, sequestration of a lung, North American blastomycosis, the Wolff-Parkinson-White syndrome, ischæmic heart disease, dissecting aneurysm, tuberous sclerosis, cervical spondylosis, Christmas disease, agammaglobulinæmia, sarcoidosis, histoplasmosis, osteoporosis, Kwashiokor, primary amyloidosis, the Fanconi syndrome, idiopathic hypoparathyroidism and pseudo-hypoparathyroidism. Chapter VI, on Water and Electrolytic Balance, is new, and has been kindly written for me by Dr. P. H. Friedlander.

The following sections have been largely or entirely rewritten: Fibrocystic disease of the pancreas, suppurative bronchitis, the etiology of carcinoma of the lung, the pneumonias, the types of pulmonary tuberculosis, the etiology of emphysema, collapse of the lung, anticoagulants, abscess of the lung, cor pulmonale, the signs of mitral stenosis, arteriosclerosis, high blood pressure, Raynaud's disease, tuberculous meningitis, epilepsy, nephritis, nephrosis, uræmia, and the etiology of pernicious anæmia.

The treatment of the following subjects has been recast: Gastric ulcer, cœliac disease, acute pancreatitis, ascites, ruptured œsophageal veins, pulmonary tuberculosis, emphysema, meningococcal meningitis, neuro-syphilis, the prophylaxis of measles and whooping-cough, the treatment of scarlet fever, typhoid fever, syphilis, tetanus, gout, malaria, chronic leukæmia and rheumatoid arthritis.

Notes have been added on the following subjects: Calcification of the liver, "liver palms," "vascular spiders," "silver stools," cough syncope, pre-menstrual asthma, printers' asthma, the rheumatoid lung, hamartoma of lung, diffuse interstitial pulmonary fibrosis, endomyocardial fibrosis, the auriculo-temporal syndrome, the Klippel-Feil syndrome, cation exchange resins, pseudohæmophilia, thrombasthenia, cat scratch disease, potassium-losing nephritis, Conn's syndrome, the Rogitine test for phæchromocytoma, and the insulin zinc suspensions.

Other additions include the therapeutic use of over thirty new preparations. Six figures have been omitted, and seven new figures added.

I have received much help in preparing this edition from my publishers, Messrs. J. and A. Churchill, and in particular from Mr. J. Rivers. My secretary, Miss E. G. Smyth, has made many valuable suggestions, has prepared the manuscript for the press, and has helped me with the proof sheets. I am indebted to Miss Josephine Hart for the photograph of my patient suffering from insulin lipodystrophy (Fig. 64), and to Mr. J. Shields for preparing the index of the book.

LONDON. G. E. BEAUMONT.

PREFACE TO THE FIRST EDITION

It has been my endeavour to produce a text-book of medicine which is not too long for the use of the student preparing for his final examination and which will also be of assistance to the general practitioner. The ideal aimed at has been to include the essentials of medicine and to omit all extraneous matter, to give the student a clear account of the essential features of each disease described, and to supply the practitioner with information as to the investigations required to establish the diagnosis in any particular disease, together with an up-to-date account of a definite line of treatment.

Special attention is directed to clinical findings. Several detailed diet sheets are given, such as those suitable for the treatment of pneumonia, typhoid fever, diabetes, nephritis, gastric ulcer, obesity, constipation, etc. The appropriate dosage, prescriptions and methods of administration of drugs are included in the treatment sections of the various diseases, over one hundred prescriptions being given in full. No effort has been spared to bring every article up to date, to illustrate them with explanatory diagrams, figures and temperature charts, and to connect them with cross references. A series of diagrams, illustrating the anatomy and physiology of the parts concerned, has been introduced into the chapter dealing with nervous diseases, so that this difficult branch of medicine may be more easily understood. The old anatomical terminology has been employed, but a glossary showing the corresponding terms in the international (B.N.A.) nomenclature is included at the beginning of the book.

It is still the duty of the general physician, attached to the teaching staff of a general hospital, to care for patients suffering from most branches of medical diseases, and to instruct students in the symptoms, signs and treatment of such diseases. Such is the reply, if reply be needed, to the criticism that the day of the one-man text-book has passed. If this is so, it could be argued that no single physician should be allowed to teach general medicine and have charge of general medical wards.

Psychological and Dermatological medicine have not been included. They are highly specialised subjects, which are not dealt with in the general medical wards of a hospital. It is true that the student and practitioner must have a working knowledge of these branches of medicine, but this is best acquired from practical experience in the special departments of a general hospital. Infectious fevers have been included, as they frequently cause difficulty in the diagnosis of other medical diseases, and they are so important in general practice. Apart from this, the diseases described are those treated in the medical wards of a general hospital.

This book is largely based upon personal experience in hospital and private practice, and I am indebted first of all to my teachers, and secondly to the authors of the numerous books and articles which I have read. I should like to acknowledge them in detail, but space does not permit, and I take this opportunity of thanking them all for the information they have put before the medical profession.

It is a great pleasure to express my gratitude to Dr. Lee Lander, who has read the typescript and made valuable suggestions and alterations. The publishers of this volume have rendered me every facility and assistance; they have been patient during the five years it has taken me to write and rewrite the manuscript, and I cannot thank them sufficiently for their help and courtesy.

G. E. BEAUMONT.

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ANATOMICAL GLOSSARY

Old Nomenclature	International (B.N.A.) Nomenclature
Fissure of Rolando	Central sulcus.
Sylvian fissure	Lateral cerebral fissure.
Lenticular nucleus	Lentiform nucleus.
Foramen of Monro	Interventricular foramen.
Foramen of Majendie	Medial aperture.
Foramen of Luschka	Lateral aperture.
Sylvian aqueduct	Cerebral aqueduct.
Valve of Vieussens	Anterior medullary velum.
Crus cerebri	Cerebral peduncle.
Superior corpus quadrigeminum	Superior colliculus.
Inferior corpus quadrigeminum	Inferior colliculus.
Superior cerebellar peduncle	Brachium conjunctivum.
Middle cerebellar peduncle	Brachium pontis.
Inferior cerebellar peduncle	Restiform body.
Cisterna magna	Cisterna cerebello-medullaris.
Cisterna basalis	Cisterna interpeduncularis.
Superior longitudinal sinus	Superior sagittal sinus.
Inferior longitudinal sinus	Inferior sagittal sinus.
Circular sinus	Intercavernous plexus.
Basilar sinus	Basilar plexus.
Lateral sinus	Transverse sinus.
Pacchionian bodies	Arachnoideal granulations.
Gasserian ganglion	Semilunar ganglion.
Ganglion of Scarpa	Vestibular ganglion.
Deiters' nucleus	Lateral vestibular nucleus.
Column of Goll	Funiculus gracilis.
Column of Burdach	Funiculus cuneatus.
Direct pyramidal tract	Anterior cerebro-spinal tract.
Crossed pyramidal tract	Lateral cerebro-spinal tract.
Direct cerebellar tract	Posterior spino-cerebellar tract.
Indirect cerebellar tract	Anterior spino-cerebellar tract.
Clarke's column	Dorsal nucleus.
Circumflex nerve	Axillary nerve.
Lesser internal cutaneous nerve	Medial cutaneous nerve.
Intercosto-humeral nerve	Intercosto-brachial nerve.
External cutaneous nerve (arm)	Posterior cutaneous nerve.
Internal cutaneous nerve (arm)	Medial cutaneous nerve.
Musculo-spiral nerve	Radial nerve.
Posterior interosseous nerve	Deep branch of radial nerve.
Radial nerve	Superficial branch of radial nerve.
External cutaneous nerve (leg)	Lateral cutaneous nerve.
Internal cutaneous nerve (leg)	Medial cutaneous nerve.
Middle cutaneous nerve (leg)	Intermediate cutaneous nerve.
Small sciatic nerve	Posterior cutaneous nerve.
Peroneal nerve	Common peroneal nerve.
Anterior crural nerve	Femoral nerve.
Genito-crural nerve	Genito-femoral nerve.
Internal saphenous nerve	Saphenous nerve.
Internal popliteal nerve	Tibial nerve.
Anterior tibial nerve	Deep peroneal nerve.
External saphenous nerve	Sural nerve.
Musculo-cutaneous nerve	Superficial peroneal nerve.
Internal plantar nerve	Medial plantar nerve.
External plantar nerve	Lateral plantar nerve.

BLOOD

Normal Chemical Constituents

FIGURES are mg./100 ml. unless indicated otherwise. mEq./L = milli-equivalent per litre. This is one thousandth of a gramme equivalent, which is the amount of a compound which can react with, or be substituted for, one gramme of hydrogen. Conversion from mg./100 ml. is effected by the following formula : $\text{mEq./L} = \frac{10 \times \text{mg./100 ml.} \times \text{valency}}{\text{atomic weight}}$.

ESTIMATION	WHOLE BLOOD	PLASMA OR SERUM
Alkali reserve (as HCO'_3)	—	53–77 vol. CO_2% (24–25 mEq./L).
Amino-acid nitrogen	4–8	3–7
Bilirubin (Van den Bergh)	—	0·1–0·8
Calcium (total)	5–7	9–11 (4·5–5·5 mEq./L).
,, (diffusible)	—	4·2–5·6 (2·1–2·8 mEq./L).
Chlorides (as Cl′)	270–310 (76–87 mEq./L)	340–370 (96–105 mEq./L).
Cholesterol (total)	110–230	140–280
Creatine	2–8	0·2–0·8
Creatinine	0·5–2·5	0·5–2·5
Diastase (amylase)	—	50–150 glucose units.
Icterus index	—	1–6 units.
Iron	—	0·08–0·18
Non-protein nitrogen	25–30	20–40
Phosphatase (acid)	—	1–3 King-Armstrong units/100 ml.
Phosphatase (alkaline)	—	3–13 King-Armstrong units/100 ml.
Phosphate (inorganic, as P)	2·5–5	2–4·5
Potassium (as K·)	150–250 (38–64 mEq./L)	17–22 (4·4–5·6 mEq./L).
Protein (total)	—	5·5–8 G./100 ml.
Albumin	—	3·5–6 G./100 ml.
Globulin	—	1·5–3 G./100 ml.
Fibrinogen	—	0·2–0·4 G./100 ml.
Prothrombin time	—	14–16 seconds
,, concentration	—	70%–140%
Sodium (as Na·)	170–225 (74–98 mEq./L)	320–345 (139–150 mEq./L)
Glucose (fasting)	60–110	60–110
Urea	15–40	15–40
Uric acid	1–4	1–4
Vitamin A	—	0·02–0·05 (70–20 i.u./100 ml.)
Vitamin C	0·6–1·8	0·5–2·0

CONTENTS

CHAPTER 1

THE ALIMENTARY SYSTEM

Introductory. Special investigations are required in the elucidation of many of the diseases of the alimentary system. These include test meals, opaque meals and enemata, gastroscopy, tests for pancreatic and hepatic efficiency, cholecystography, and bacteriological and chemical examination of the fæces.

THE MOUTH AND PHARYNX

Gingivitis

Definition. Inflammation of the gums. There are three varieties: Marginal, general and ulcerative. These will be considered separately.

Marginal Gingivitis

Etiology. Marginal gingivitis is associated with mouth-breathing, lack of efficient mastication and cleanliness of the gums, and the use of hard tooth brushes and tooth picks.

Clinical Findings. The patient may complain of bleeding or soreness of the gums on brushing the teeth. The gums are red and swollen at their margins, or they may be retracted around the teeth. Pus may be squeezed from between the gums and teeth.

Treatment. The causes of mouth-breathing should be eradicated if possible. Tartar should be removed from the teeth, and the gums massaged with the fingers towards the teeth, night and morning. The tooth brush should be small and soft, and no gritty powder used. A mouth-wash of milk of magnesia should be used at night.

General Gingivitis

Etiology. General gingivitis may be caused by drugs such as mercury or lead, or result from ill-fitting dentures and inattention to the teeth. It may also occur during pregnancy, in scurvy, or in association with any severe illness.

Clinical Findings. The gums are red, swollen, sore and bleed on pressure. A blue line may be seen in lead poisoning.

Treatment. This is as for marginal gingivitis. In scorbutic or pre-scorbutic conditions, as judged by urine tests, vitamin C should be given until the patient is saturated. The initial dose is ascorbic acid tab. mg. 50, 2 t.i.d. followed after a few days by mg. 50 b.i.d.

Ulcerative Gingivitis

Etiology. Ulcerative gingivitis is associated with the fusiform bacillus and the treponeme of Vincent. Pyogenic organisms may also be present.

Clinical Findings. There is an acute infection, often with pyrexia.

The gums are painful and swollen. Sloughing may occur and the teeth fall out. The infection may spread to the tonsils or pharynx.

Treatment. The ulcers should be painted with a solution of liq. arsenical. m. 90, tnc. ipecac. m. 90, glycerin. m. 60, and, in addition, a mouth-wash such as gargarisma pot. chlorat. should be used frequently. Good results have been obtained in some cases by the oral administration of nicotinic acid tab. mg. 50, 1 five times daily for 10 days. A penicillin lozenge may be placed between the affected area of the gum and the cheek, and allowed to dissolve, every hour for 8 doses, or the gum may be sprayed with a penicillin solution (1,000 units per ml.) every 2 hours. In severe cases the best result is obtained by the intramuscular injection of 300,000 units of a procaine penicillin every morning and evening for 5 days.

Pyorrhœa Alveolaris

This may be a more advanced stage of marginal gingivitis, or occur independently. There is inflammation of the periodontal membrane around the tooth root, and later rarefying osteitis of the alveolar margin. No specific causative organism has been found, but streptococci and various anaerobes are usually present. Innumerable ills are attributed to pyorrhœa, from mild degrees of ill-health to crippling attacks of rheumatism and fatal illnesses such as malignant endocarditis. However this may be, pyorrhœa should be adequately treated by a dental surgeon, but wholesale extractions for marginal gingivitis are to be deprecated.

Dental Abscesses

The Alveolar Abscess. This may result either from dental caries leading to inflammation and death of the pulp of the tooth, or from periodontitis. The abscess is painful.

The Small Apical Abscess. This is usually due to infection of the pulp in a crowned or carious tooth. There is no actual pus present, but a small granulomatous mass, which often causes no local symptoms, is revealed by X-ray examination. The focal infection is considered to be etiologically connected with numerous diseases, such as rheumatism, thrombo-phlebitis migrans, infective endocarditis, etc.

The offending tooth should be extracted.

Halitosis

Definition. Offensive breath.

Etiology. Halitosis may be due to numerous causes, such as chronic tonsillitis, pyorrhœa, infection of the antra or adenoids, chronic gastritis, bronchiectasis, etc.

Stomatitis

Definition. Inflammation of the mucous membrane lining the mouth. Six varieties are described.

Catarrhal (Simple) Stomatitis

Etiology. Catarrhal stomatitis may be due to local causes, such as a sharp tooth, very hot food, or over-smoking. It may also result from