Post-Graduate Medical Journal

LONDON, JULY, 1942

Hypertension.

Although the title hypertension has received a certain amount of criticism, nevertheless it holds its place as a name for a certain condition and it matters little whether you call it hypertension or hyperpiesia or just simply high blood pressure. The aetiology and also unfortunately the treatment of this condition has not advanced very considerably in the last thirty years.

This is perhaps a matter for some surprise, for an enormous amount of work has been done on the subject and certain researches, notably those of Goldblatt, have appeared to be of some fundamental importance.

In 1827 Dr. Bright reported certain cases in which a blood pressure was raised, and from 1830 to 1836 Dr. Bright and his colleagues at Guy's Hospital worked on the disease which subsequently bore Dr. Bright's name. Dr. Bright and his co-workers were of opinion that renal change was the basis for increased peripheral resistance and so for high blood pressure. Very little further work was done on this condition for fifty years and then Dr. Mahomed working at Cambridge in 1881 challenged the contention that the high blood pressure was dependent on kidney change. In this view he was supported by some eminent workers, and so late as 1915 Sir Clifford Allbutt was in favour of the suggestion that kidney disease was not the sole cause of hypertension. And indeed, there were certain reasons why this opinion should be held. Amongst the evidence which was quoted was the fact that hypertension often exists in the absence of clinical evidence of renal disease, that post-mortem examination of the kidneys of hypertensive persons frequently shows little evidence of serious renal disease, that hypertension may develop in the course of certain diseases of the endocrine glands.

Popular opinion swung away from the idea that hypertension was essentially renal in character and two types were suggested, the renal type and the type which came to be known as an "essential" hypertension. This latter type was supposed to be non-renal in origin, but the cause was unknown.

If clinical evidence alone is accepted opinion will probably be that the kidneys cannot by themselves be the sole cause of high blood pressure. In a recent article, however,* the evidence has been very clearly reviewed. Although all the points in favour of hypertension having more than one cause are clearly put, it is pointed out that experimental difficulties have stood in the way for some considerable period and it was not until 1939 that a satisfactory method for repeated measurements of the blood pressure in small animals was worked out.

In 1928 Goldblatt and his co-workers started their classical work which was published in 1934 and offered for the first time a feasible method of producing chronic hypertension in the dog.

As the result of this work attention has again been riveted on the role of the kidney, and the concept of "essential" hypertension has been seriously challenged. In spite of this, nevertheless, the existence of hypertension in such syndromes as Cushing's syndrome still remains to be explained.

In considering these researches it is important to remember that renal hypertension is said to be independent of renal excretory failure; the evidence is that renal hypertension can exist in the presence of normal chemical composition of the blood. The opinion is now held

* "Effects of Renal Extract on Hypertension," by Arthur Grollman et al, Bulletin of the New York Academy of Medicine, **18**, 190, 1942.

that hypertension was the result not of the retention of renal products but of the presence in the body of renal tissue which was not functioning properly.

Grollman next discusses the question of a renal pressor mechanism. He describes how Tigerstedt and Bergmann in 1898 described a pressor substance of renal origin which they called "renin." Certain workers in recent times in America and the Argentine showed that renin interacted with blood serum to form a highly active pressor substance which was also a vasoconstrictor. From the present-day point of view the importance of this observation was that it led to the conception of an anti-hyperpressor mechanism. The work so far available does not afford any grounds on which we could accept the fact of this anti-pressor substance. But Grollman produces some work of his own which indicates that there may be fairly strong evidence of the existence of this substance.

So far then, there is some indirect evidence that an anti-pressor substance is present in normal renal tissue. Grollman and his co-workers as well as a good many other workers, especially in the American field, have produced, however, some direct evidence of this. It has been shown that the blood pressure of certain animals with renal hypertension may be reduced by the administration of an extract of renal tissue. Grollman has obtained some result approximating this in 1,000 rats and about 20 dogs. His view now is that this may be as potent a method of treatment by mouth as by injection. He quotes four cases which he treated in this way, but he himself is not satisfied that the effect produced by the administration of the extract was in itself responsible for the result obtained. Nevertheless he feels that the work should be confirmed by other people, and thinks that his work is sufficiently impressive to justify this course of action.

Unfortunately the amount of material required to produce the extract necessary for the treatment of this condition in human beings is too large for ordinary use. Grollman compares this state of affairs with the position of ovarian extract a good many years ago, and he hopes that the problem may be solved in very much the same way as the ovarian problem itself.

This work is of considerable importance, and although its effect on treatment to-day is not likely to be considerable, there are good grounds for thinking that it will become significant in the near future.

FUTURE EDITORIAL PLANS.

The necessity for post-graduate study remains the one sure thing in the world of medical planning and reconstruction. It is unreasonable to expect a man just qualified to enter practice and to be able, after the first few years of completely reorientating his ideas to the practical aspects of medicine, to remember all the various clinical and laboratory details which he so laboriously learned as a student.

The Fellowship of Medicine has always realised the importance of this problem, and as post-graduate instruction is its main object, it has tried to be of value to the general practitioner, as well as to post-graduates specialising or sitting for higher examinations.

With so many men being called up, more and more work must devolve upon those remaining behind, and few courses of instruction are now available even if the practitioners could find time to attend. Realising the difficulties which now stand in the way of clinical post-graduate study, the Fellowship of Medicine is trying to deal with the problem through the medium of its Journal.

Introducing Two New Series.

Beginning in this number, we are publishing two new features in the Journal, in addition to the usual articles. The first is the CLINICAL PAGE (see p. 128), devoted entirely to Case Reports which are likely to help the practitioner who has little time for reading. The main features of these Reports will be their brevity, clarity, and clinical interest. We hope to obtain the support of many contributors to this series, and we shall be glad to receive interesting case reports from our readers.

The second new feature is a long series of articles, in two volumes, dealing with the Clinical Aspects of Practical Medicine. In these days of specialisation there is a tendency to send patients for specialist advice more often than was the case some years ago. The practitioner, therefore, needs to keep up to date with modern methods of diagnosis and treatment,

and this entails hours of reading, which the busy man cannot spare. It is hoped that this new series will enable practitioners to read, in a short space of time, articles which will be of real practical value to him in his everyday life in general practice. For this reason the series is called "PRACTICALITIES." The following is the list of articles which will appear month by month and which will constitute Volume I:—

1. Anaesthesia in general practice (appearing in this issue on p. 116).
2. The application of physiology to general practice and its place in rational therapeutics. Part I. (Two parts—one in next volume.)
3. The clinical study of the cardio-vascular system in relation to practice.
4. The interpretation of the electro-cardiograph: normal—arrhythmias—and coronary disease.
5. The diagnostic significance of the systolic murmur.
6. The treatment of cardio-vascular disease in practice.
7. The clinical study of the respiratory system.
8. The interpretation of the radiograph of the chest.
9. The diagnosis and treatment of some of the acute chest diseases.
10. The diagnosis and treatment of some of the chronic chest diseases.
11. The diagnosis and treatment of intrathoracic suppuration and the uses and abuses of the sulphonilamides.
12. The treatment of burns and wounds in practice and a discussion on shock.

Whenever possible the Fellowship of Medicine intends to arrange courses specially designed for the practitioner. Please give us all your support in these difficult days: by telling your professional colleagues of our schemes, and asking their co-operation, you can help us to carry out our plans.

Post-Graduate News

Courses of instruction in medical and surgical subjects are arranged from time to time as the opportunity occurs, and may be attended by any medical practitioner, though a slightly higher fee is payable by those who are not Members of the Fellowship of Medicine. Detailed syllabuses of each course are prepared as soon as possible, and if post-graduates will notify the Fellowship of Medicine (1, Wimpole Street, London, W.1) of the subjects in which they are interested, their names will be entered on the appropriate mailing lists to receive copies, without charge, when published.

CARDIOLOGY

National Heart Hospital, Westmoreland Street, W.1

Out-patients clinics every Tuesday and Wednesday at 10 a.m. Tickets can be obtained from the Fellowship of Medicine, price 25s. for 10 attendances, or 2s. 6d. for single attendances.

ANAESTHETICS

OXFORD: Department of Anaesthetics, Radcliffe Infirmary

Professor R. R. MACINTOSH, D.M., F.R.C.S., D.A.; First Assistant: FREDA B. BANNISTER, M.A., M.D., D.A.

Tuition is available for any period from one week upwards. No special lectures or demonstrations will be arranged, but as much teaching will be given as the ordinary hospital routine

will permit. Only a limited number of post-graduates may attend at any one time. Fee, Members of the Fellowship of Medicine, £3 3s. od. for one week, and £2 2s. od. for each consecutive week after the first; to non-Members, £3 13s. 6d. for one week, and £2 2s. od. for each consecutive week after the first. Occasional Intensive Revision Courses each of two weeks' duration (fee, £10 10s. od.) will be given during the year, and while these Courses are in progress the above-mentioned tuition will be suspended. Applications must be made to the Fellowship of Medicine, *not* to the Radcliffe Infirmary, Oxford. No application sent direct to Oxford will be dealt with there, but will be forwarded to the Fellowship of Medicine.

LONDON: Southern Hospital (Dartford) and Seamen's Hospital (Greenwich) DR. WILLIAM MUSHIN, D.A.

Tuition given on Monday mornings, and all day Tuesdays, Wednesdays and Fridays. Limited to 2 post-graduates at a time. Fee, to Members of the Fellowship of Medicine, £1 11s. 6d. for one week, £3 3s. od. for two weeks, £5 5s. od. for four weeks. (To non-Members the fee is 10s. 6d. more in each case.) Application for vacancies, stating period required and date of beginning tuition, should be made to the Fellowship of Medicine and *not* to the Hospitals.

FELLOWSHIP OF MEDICINE AND POST-GRADUATE MEDICAL ASSOCIATION MEMBERSHIP

Only qualified medical practitioners may become Members or Associates of the Fellowship of Medicine. The subscription rate, dating from the month of joining, and including the POST-GRADUATE MEDICAL JOURNAL, are as follows:

MEMBERS: £1 1s. od. per annum.
ASSOCIATES: 15s. per annum.

Members and Associates are entitled to pay lower fees for attendance at Courses of instruction arranged by the Fellowship of Medicine. (Associates are members of Medical Societies affiliated to the Fellowship of Medicine—a list of these Societies may be obtained on application to the Fellowship.)

The subscription rate to the POST-GRADUATE MEDICAL JOURNAL for practitioners resident overseas is 12s. per annum, post free, and this rate is also payable during the war by any practitioner serving with H.M. Forces, whether at home or abroad. Subscribers at this rate are not entitled to pay the lower fees, quoted to Members and Associates, for attendance at Courses of instruction.

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JULY, 1942.

chemical substances frequently cause clinical urticaria they hardly ever produce wheals on skin test.

Inhalant factors are the next commonest cause, especially in those cases appearing during the night or on waking in the morning due to a sensitivity to feathers, down or horsehair in the pillows, bolster, mattress or eiderdown. Other cases appear due to orris root or drugs in cosmetics, to occupational or house dusts, insecticides or animal hairs. These causes should be removed as far as possible, following skin tests, and desensitising measures are extremely beneficial

Any causative food should be avoided but in general foods are less common causes than the drug and inhalant groups. The treatment of flatulent indigestion or chronic gastritis with their concomitant hypochlorhydria is essential, and the administration of 20–30 minims of dilute hydrochloric acid in a wineglassful of water immediately before each meal is indicated. The bowels should be kept open with saline aperients. Sometimes salol (10 grains thrice daily), ichthyol (5 minims in capsule thrice daily) or such adsorbants as charcoal or kaolin are beneficial.

Contactant substances may cause or irritate urticarial conditions, so the rôle of wool, silk, furs, dyed clothing, cosmetics, animals, adhesive plaster and occupational dusts needs consideration.

The physical causes form an important group. In light cases sunlight or ultra-violet light exposures are employed; in heat cases baths of gradually increasing temperature, exposures to diathermy or other electrical heat, or such pyrogenic therapy as B. Coli vaccine intravenously are sought: and in cold cases frequent cold baths, gradually decreasing the temperature whilst increasing the period of immersion, are utilised. Practically all cases due to physical agents may be benefited by a course of gradually increasing doses of histamine injected subcutaneously, beginning with 1/10 mg. and increasing daily by 1/10 mg. up to a dose of 1 mg.

In infective cases any septic foci should be eradicated as far as possible, and occasionally vaccines may prove of benefit.

In most cases there is an associated lowering of the basal metabolism and adequate doses of thyroid extract are necessary. In the presence of defective blood coagulability, calcium may help.

If the cause cannot be determined or removed, the withdrawal of 10 c.cm. of blood from a vein at the elbow and its injection intramuscularly into the buttock each five days until six injections have been given is more uniformly successful than other non-specific methods such as injections of histaminase or peptone.

SPECIAL NUMBERS OF THE JOURNAL

Special numbers have been published from time to time, each dealing comprehensively with a particular branch of medicine or surgery. These special numbers are as follows, and copies, price 2s. each, post free, may be obtained from the Fellowship of Medicine, 1 Wimpole Street, London, W.1. A list of contents of any individual number will be sent on application.

OBSTETRICS	(August, 1933)	TROPICAL DISEASES	(November, 1938)
OPHTHALMOLOGY	(August, 1934)	CEREBRAL TUMOURS	(May, 1939)
NEUROLOGY	(April, 1935)	FOCAL SEPSIS	(February, 1940)
UROLOGY	(November, 1935)	*WAR WOUNDS OF THE CHEST	(March, 1940)
CARDIOLOGY	(April, 1936)	*WAR WOUNDS OF THE ABDOMEN	(April, 1940)
PROCTOLOGY	(August, 1936)	*WAR WOUNDS OF THE LIMBS	(May, 1940)
NEPHRITIS	(February, 1937)	*WAR WOUNDS OF THE EYE AND ORBIT	(June, 1940)
RHEUMATISM	(September, 1937)	*WAR WOUNDS OF THE HEAD AND FACE	(July, 1940)
ORTHOPÆDICS	(October, 1937)	MEDICINE IN THE U.S.S.R.	(January, 1942)

* *"War Wounds and Injuries," published by Edward Arnold & Co., London, price 14/–, is a reproduction of these five special numbers in book form.*

FORTHCOMING MEDICAL BOOKS

E. & S. LIVINGSTONE

"The Natural Development of the Child." A guide for Teachers, Parents and others, by Miss Agatha H. Bowley, Ph.D., Psychologist, Child Guidance Clinic, Training College, Dundee. Price 8s. 6d. net, postage 6d. *Just published.*

Just published. The New Second Edition of Hamilton Bailey's *"Surgery of Modern Warfare."* Volume 1 has just been published at 40s. net, and Volume 2, at the same price, will be ready at the end of this month. The book has been published in two Volumes to make it more convenient for reading and carrying.

A New Fourth Edition of Jamieson's *"Illustrations of Regional Anatomy."* Sections 1 to 5 and the New Third Edition of Sections 6 to 7 have just been published. The complete set costs 60s. net, postage 10d. Cloth bound copies of the complete set of Seven Sections in one Volume, price 60s. net, are also in preparation and will be published probably in August.

The New Sixth Edition has also been published of Mackie & McCartney's *"Handbook of Practical Bacteriology,"* 688 pages. Price 17s. 6d. net, postage 7d.

New Editions in the press include Bruce Williamson's *"Handbook of Diseases of Children."* Third Edition, ready on July 20th. Price 12s. 6d. net, postage 6d. The New Edition has been thoroughly revised and includes six plates in colour, four of these dealing with Common Fevers.

The New Seventh Edition of Glaister's *"Textbook of Medical Jurisprudence and Toxicology,"* price 28s. net, is now printing and it is hoped will be ready early in September. The book has been entirely rewritten and reset and will be printed on art paper with many new illustrations.

To be published early in August, *"War Injuries of the Chest,"* edited by H. Morriston Davies, F.R.C.S., and Robert Coope, M.D., compiled by members of a Chest Surgical Unit. Royal 8vo, Flexible Rexine Cover, 140 pages, 36 illustrations. Price 6s. net, postage 5d.

A New Edition of Farquharson's *"Illustrations of Surgical Treatment"* is also in the press and will be published in September, containing over 400 pages, with 400 illustrations, including 60 full-page plates. Price 25s. net.

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