

marua), and submit this to the Professor of Pharmacology, Medical College, Calcutta, by 15th March, 1933.

Note.—Personal attendance is not necessary.

Preference will be given to the candidate whose thesis bears evidence of original investigation on the subject.

(The above is a résumé of the terms of the scholarship; for further details application should be made to the Principal, Medical College Hospital, Calcutta.—*EDITOR, I. M. G.*)

FIFTY YEARS AGO

(From the Editorial, *Indian Medical Gazette*,
January 1883)

If future observation endows the germ theory with more substantiality than it now possesses, it will command very special attention and interest in the country, where so much sickness and mortality are due to

maladies which have repeatedly been attributed to microphytes, *e.g.*, cholera, fever, leprosy, elephantiasis, syphilis and phthisis. Our knowledge of these diseases has not undergone any appreciable addition during the year, and it seems as if the mere study of the phenomena of these affections were insufficient to guide practice, whether preventive or remedial, and that until the intimate and immediate cause of them has been discovered, we must remain content to grope in the dark. It is remarkable and somewhat disheartening how little aid is derived from empiricism, and the history of medicine shows that this has ever been the case. If disease germs were indisputably demonstrated and their natural history thoroughly worked out, power would result from that knowledge, such as all the superficial and empirical labours of ages have failed to establish. One fact, however, of immense practical importance is yearly becoming more prominent, and that is, that, whatever the intimate cause of so-called zymotic disease may be, its dependence on sanitary shortcomings and prevention by sanitary reforms is indisputable.

Current Topics

Treatment of Hypertony

By I. HARRIS, M.D.

Konigsberg

(Abstracted from the *Lancet*, 10th September, 1932,
p. 560)

RECENTLY we have shown that the administration of certain drugs for the purpose of reducing pressure in cases of hypertony results in a disturbance of the equilibrium of the different blood constituents. Patients with hypertony whose pressure was reduced artificially showed an increase of blood-urea and non-protein nitrogen; the water-excretion function was depressed, the alkali reserve of the blood diminished, and the cardiac reserve power lessened. These facts suggest that the indiscriminate use of pressure-reducing drugs is extremely undesirable. In this paper an attempt is made to study certain methods of treatment of hypertony in relation to their action on blood chemistry.

At the outset it is necessary to differentiate between methods of treating hypertony whose object is simply the reduction of pressure without regard to ætiological factors, and methods whose aim is to reduce pressure by treating the causal factor. The first must be of doubtful value, the second can do nothing but good.

The patients were kept in bed. During the first week no treatment was given. During the second week Collosol sulphur was injected, 3 c.cm. daily. During the third week six pints of water were given daily. The patients were kept on a standard diet all the time. In other cases the procedure was altered. In the first week the patient had no treatment; in the second week he was put on salt- and sugar-free diet; in the third week a diet consisting mainly of carbohydrate, and in the fourth week a pure meat diet was given.

WATER

I know of no method of reducing blood pressure which is uniformly efficacious in all cases. Indeed, considering the various ætiological factors of hypertony, no uniformity can be expected. The drinking of large quantities of water effects a striking reduction in the blood pressure in many cases. I have used this method with good effect in cases of high blood pressure with a high degree of viscosity for the purpose of lowering the latter. At that particular time it was not clear to us why the action of water should have been what it was. I am now in a better position, I believe, to conjecture the reason of its beneficial action. I found

that in cases under sulphur treatment, *pari passu* with the reduction of pressure, there was an accumulation of deleterious substances in the blood. The same phenomenon was observed when the pressure fell simply as the result of heart failure. This suggests that high pressure in cases of hypertony is needed for the purpose of maintaining a normal chemistry balance in the blood. On the other hand, cases under treatment with water, although the blood pressure was definitely reduced, showed a normal blood chemistry. The beneficial effect of large doses of water is probably due to the fact that it enables the kidney to excrete urea and allied substances more easily. In this way a normal blood chemistry balance is maintained and there is no longer a necessity for a compensatory hypertony.

It has been contended that large quantities of water increase the strain on the heart by increasing the blood volume. It is, however, obvious that a treatment which reduces pressure and blood viscosity must also diminish the cardiac strain. Moreover, I have been able to show that there is no hydræmia after the imbibition of large quantities of fluid. Therefore there cannot be an increased blood volume under this treatment. So far as the kidney is concerned, the drinking of large quantities of fluid is all to the good. It has long been established that the work which the kidney performs in passing concentrated urine is far greater than when the urinary output is diluted.

SALT- AND SUGAR-FREE AND PROTEIN DIET

A salt- and sugar-free diet reduces and a protein diet increases the blood pressure. Broadly it may be stated that in hypertony the blood pressure stands in an inverse ratio to the non-protein nitrogen level in blood. It is true, as we have seen, that after the imbibition of large quantities of water both the pressure and the non-protein nitrogen (N.P.N.) tend to be lower, but in this instance the action of the water is what it is because it apparently does away with a causal factor of hypertony (*viz.*, increased blood viscosity). The blood-urea is somewhat increased under the salt- and sugar-free diet and somewhat diminished under meat diet, although urea is an end-product of protein. It is possible that a low blood-urea after meat may be explained by the diuretic properties of this substance. The increase of blood-urea after a salt-free diet is by no means so pronounced and constant as it is under conditions where pressure-reducing drugs are given. It is possible the increase has something to do with the

maintenance of the normal osmotic pressure, which is lowered by a salt-free diet.

After venesection there was a pronounced reduction of blood pressure, and the blood biochemistry remained normal, but, as has been the experience of many others, the beneficial effect of this procedure is only transitory. Within less than a week the blood pressure reached its usual level.

I was further able to show that the urea-concentration test so much in vogue is not always quite reliable. Urea was given to a patient before the blood pressure was raised and also when the pressure was relatively low and the blood urea high. The effect of the same quantity of urea was different in the same patient under these two conditions. Apparently, when the blood-urea is already high, an additional dose of urea may exert a pronounced diuretic effect which may result in a lowering of the blood-urea level. This was the reason why the urea-concentration test has given no consistent results in this investigation.

The conclusion is that it is undesirable to employ drugs for the purpose of reducing pressure. On the other hand, the imbibition of large quantities of water ought to be encouraged. The diet should be of low protein content, and excessive amounts of salt should be avoided.

Studies on the Anterior Pituitary-like Hormone with Special Reference to Irregular Uterine Bleeding

By A. D. CAMPBELL, M.D., F.R.C.S., Canada,
M.C.O.G., F.A.C.S.

(Abstracted from the *Lancet*, 10th September, 1932, p. 561)

A PRELIMINARY report on the treatment of irregular uterine hæmorrhage by hypodermic injection of the anterior pituitary-like hormone extracted from human placenta was read before the Winnipeg meeting of the British Medical Association in August 1930. The results were so promising that a series of 84 cases has been more continuously and completely studied.

The alleged association of certain physical characteristics with endocrine disorders was a matter of special interest. In each case, therefore, a detailed general history, as also an exhaustive menstrual history was always obtained as a preliminary, while the complete physical examination had special reference to possible endocrine relations. It is interesting to note that in the 60 per cent. of our cases which were examined by x-rays to ascertain any possible gross abnormality in the conformation of the sella turcica, no bony changes were found.

Determination of blood pressure, blood Wassermann reaction, and urine analysis were carried out as a routine. The basal metabolic rate in all instances was found to lie within normal limits. Particular emphasis was, of course, laid on the pelvic examination to determine the position, shape, and size of the uterus, and the state of the adnexa; all cases with endocervicitis or birth trauma which in themselves would lead to such pelvic congestion as to predispose to, or cause post-menorrhagia or metrorrhagia, were excluded. Post-menopausal metrorrhagia was also omitted from the study, on account of its frequent association with carcinoma of the fundus or malignant changes in the adnexa. Nor should one leave out of consideration the possible existence of small myomata in the fundus, for, as Beckwith Whitehouse has pointed out, small mural fibroids may so interfere with the contraction of the uterus as to cause excessive menstrual flow. Moreover, since the surfaces of the endometrium are normally in constant apposition, the presence of any submucosal myoma or other irregularity in the surface, allows of and predisposes to local hypertrophy or polyp formation; myometrial changes in persistent uterine bleeding have been described by Schroeder, Whitehouse, Young, and Lockyer. Too much stress cannot be laid on the need

of careful exploration of the cavity of the uterus in order to determine the character of the surface of the wall, as well as to obtain samples of endometrium for histological study.

TYPES OF HÆMORRHAGE

In an earlier communication I stated that cases of excessive uterine bleeding may be grouped into several categories according to their menstrual history. (Table below).

The last group (G) may be further subdivided into four categories, according to the mode of development of the continued bleeding which may arise.

- (a) By confluence of regular cycles of varying length of interval with unduly prolonged duration of the flow.
- (b) By confluence of irregular periods of metrostaxis.
- (c) Spontaneously, either after a normal menstrual cycle or more commonly after a period of amenorrhœa.
- (d) As an outcome of puberty.

TABLE.—Varieties of abnormal uterine hæmorrhage

	Length of cycle	Amplitude of flow	Duration of flow
A	Normal	Excessive	Normal.
B	"	"	Prolonged.
C	"	"	Normal, superimposed on constant bleeding background.
D	Short (19-24)	Normal or excessive.	Normal or prolonged.
E	Short (14 days)	"	Irregular.
F	Acyclic intermittent bleeding.	Irregular	"
G	Continuous excessive hæmorrhages.		

Excessive bleeding may appear at any time from the menarche to the menopause. In cases of metrorrhagia, the size of the uterus may be within normal limits, but more frequently it is symmetrically enlarged, and its consistency may wrongly suggest subinvolution or a sessile fibromyoma. When bleeding commences at puberty the uterus is not necessarily enlarged, but its shape becomes similar to that of the parous woman's uterus, in that the corpora-cervical angle is less acute. Even in young patients suffering from excessive uterine bleeding it is found that the cervix is slightly patent and easily admits a small sound. In the parous woman the patency is more pronounced.

I should like to emphasise here that the endometrium in menorrhagia and metrorrhagia gives little information regarding the character and severity of uterine bleeding; nevertheless, it is to some extent true that the changes produced in the mucous membrane may be taken as an index of ovarian function in cases otherwise apparently normal. It is clear that where cycles exist samples of the endometrium must be obtained at the same part of the epoch in parallel cases if any comparison is to be made. If the cycles are masked by continuous hæmorrhage, the interpretation becomes more difficult. Moreover, Evans has pointed out, in a critical review of the work of Schroeder, that premenstrual changes in the endometrium occur in some cases immediately after the cessation of the period, and that exactly similar changes may occur very late in the interval, so that the value of comparisons of one case with another, even if samples were obtained at the same time in relation to the apparent menstrual cycle, appears to be hazardous.

It has been shown by Schroeder and by W. Shaw that in cases of metropathia hæmorrhagica the ovaries contain no fresh corpora lutea, but a follicle with cystic changes is the rule. Although Novak has not confirmed

this finding, it is generally considered that the endometrial change is associated with subnormal ovarian function. However, the complete removal of the ovaries does not lead to any similar condition, and J. B. Collip (1932) has found that the fluid from such follicular cysts in cases of this type of irregular uterine bleeding may contain up to 25 rat units of œstrin per c.cm. This suggests that there is a secretion of œstrin from the ovaries which is disproportionately great, whether absolutely or relatively to the reduced activity of luteal tissue which may be inferred from the appearance of the ovaries. With regard to the suggestion made by Shaw, that the ovary produces some abnormal toxic substance, it may be stated that similar suggestions have been made from time to time for other organs of internal secretion, but in every case the view that disturbances are due to excessive or deficient formation of the normal hormone has prevailed.

EFFECT OF THE HORMONE ON BLEEDING

Animal experiments show that excessive doses of œstrin not only affect the production of monophasic cycles, but in continued administration may eliminate the cycles. Excess œstrin affects the entire human organism. As regards the uterus the effect is not limited to the endometrium, but affects the myometrium as well, and herein lies an important consideration. The continued administration of moderate doses of the anterior pituitary-like hormone (A. P. L.) in immature female rats leads to the precocious appearance of normal œstral cycles, while the ovaries rapidly attain the size and appearance of those of normal adults. There is, therefore, reason to suppose that this substance might directly, or through the anterior pituitary, correct the changes observed in the ovaries in metropathia hæmorrhagica, and lead to the appearance of normal balanced ovarian function and the recovery of normal uterine structure and function. This expectation was realised in many cases of varied types.

Preparations of different strengths were used, but the dosage was so adjusted that the patient received at least 40 day-rat units per injection. Our best results were obtained by an injection every day for seven days, then every second day until the patient had passed through two menstrual cycles. When the menstrual flow became of normal duration and proportion treatment was discontinued. A high percentage of cases in all groups responded. In all groups there were some instances of recurrences of menorrhagia or metrorrhagia, but upon reinstitution of the therapy the cases responded with comparatively few injections. Group D, however, proved disappointingly refractory.

In typical cases of so-called metropathia hæmorrhagica, the institution of A. P. L. treatment did not cause any immediate cessation of bleeding; indeed, while hæmorrhage commonly became less copious, there was no striking change for eight to ten days, and then the bleeding became very profuse, usually worse in the morning, with sharp 'spurts' throughout the day. This exacerbation, however, gradually subsided, and the bleeding practically disappeared except for slight metrorrhagia, for from four to five days' duration, or lasting into the next cycle. The majority of cases, when treatment was continued, manifested a menstrual period on the twenty-eighth day after the first exacerbation (which is regarded as an epoch superimposed on the background of more or less continuous hæmorrhage), and at this period the hæmorrhage was usually greater than a normal flow in duration and amount, clots and large mucosal fragments were passed, accompanied by considerable pain. Usually the treatment was discontinued at this point; if, however, the uterus remained large, and no pain was experienced, the treatment was continued; it was assumed with some reason that the bleeding of metropathia, which is characteristically painless, was not overcome and that the myometrium had not returned to normal. It may be that several menstrual cycles must elapse before the endometrial over-growths are completely shed, since Whitehouse has

shown that the uterine mucosa is not completely nor uniformly shed, even in normal menstruation. On the other hand, in cases which were curetted prior to the institution of therapy the result was considerably hastened. Once cycles of normal interval and proportion were established, they continued normally thenceforward, and in all cases which responded the uterus too returned to normal proportions. This maintenance of normal rhythm has been followed in some cases for over two years. There were, of course, exceptions to this typical history—for example, in women near the menopause, where the cessation of hæmorrhage is followed by amenorrhœa. It is of interest to note that the vasomotor disturbances of the menopausal syndrome did not appear in such cases.

In patients with continuous uterine bleeding dating from puberty the gross response was satisfactory, no matter how long the hæmorrhage had continued, though after one or two cycles the normal rhythm was not perfectly established, being punctuated with periods of amenorrhœa lasting up to three months. Only very occasionally did the symptoms recur. It is worth noting that over 10 per cent. of the cases in this entire series had at some time or another previously been treated with radium or x-rays, with only temporary improvement.

In cases of post-partum metrorrhagia the results were particularly good; there were ten cases treated, and all responded. Excessive menstruation following abortion responded similarly.

When pelvic inflammatory disease was the cause of metrorrhagia or menorrhagia the symptoms were aggravated by this method of treatment.

In cases of polymenorrhœa with flow of normal character, but recurring at irregular short intervals, it was sometimes possible to increase these intervals by three or four days; the previous condition, however, recurred when treatment was discontinued.

OTHER USES OF THE HORMONE

May I again emphasise the need of an outlook that extends beyond the endometrium and the study of mere local changes? The entire human organism is influenced by ovarian function. While the endometrium is a tissue easily accessible to study, the pattern of which alters from day to day, there are changes of a general biological character which may give rise to clinical symptoms, though they are not evident in the endometrial architecture.

In this connection clinical trial of A. P. L. extract was extended to other conditions. Thirty cases were treated for menopausal symptoms and 24 responded. The improvement was marked even when a considerable time had elapsed since the last menstruation. In six of these cases in which periods had ceased for various lengths of time up to one year, menstruation reappeared in from eight to ten days.

In cases with mastalgia, or so-called chronic mastitis, particularly those associated with abnormal menstrual cycles, not only was the pain relieved, but the small pea-like nodules in the breast disappeared. Let me add here that the normal mammary gland was never affected even in prolonged administration of A. P. L., nor was the post-partum breast in any way altered.

A form of urticaria associated with subnormal ovarian function and refractory to all other forms of medication disappeared with the administration of this hormone. Vomiting of early pregnancy was not improved, though it is worthy of note that in none of the cases treated was there any tendency to abortion. Cases of sterility, in most instances associated with polymenorrhœa, did not become pregnant, though two cases suffering from metrorrhagia became pregnant while being treated, and one other with a similar condition became pregnant immediately after cycles were established.

Dysmenorrhœa was intensified. It has previously been pointed out that in the treatment of menorrhagia and metrorrhagia the appearance of pain frequently

marked the beginning of improvement. Intermenstrual pain (Mittelschmerz) became more severe under treatment.

In cases with normal cycles no change either in the amount of hæmorrhage or the duration of the interval was observed, even when the injections were continued for months.

A typical menstrual period occurred in ten cases of secondary amenorrhœa in from 10 to 14 days after therapy was instituted. No success was obtained in similarly treating primary amenorrhœa. The preparation of anterior pituitary-like hormone used by us did not cause any local symptoms or alteration in blood pressure levels or give rise to systemic reaction.

It is generally held that the corpus luteum is essential for normal menstrual cycles, but I believe that this dogma must be modified, as pointed out in a previous communication (Campbell and Collip, 1930). Moreover, Corner and Hartman have shown that the corpora lutea are not necessarily present in ovaries showing cyclic activity as manifested by menstruation. Ovarian function in the human may, therefore, be largely appraised by the regularity, amplitude, and duration of the menstrual epochs as well as by general well-being.

IMPRESSIONS

(1) There are several types of irregular uterine bleeding which may be distinguished by their menstrual histories. In selecting cases for treatment, correct diagnosis is essential; the organs in the pelvis must be palpably normal, and the presence of neoplasms of the uterus must be excluded. (2) Menorrhagia and metrorrhagia due to inflammatory diseases are aggravated. (3) Metropathia hæmorrhagica responds particularly well. Pain is taken to signify that the musculature has returned to normal tone, and that the hyperplastic endometrium is being rapidly expelled. (4) Response is not so consistent in metrorrhagia of puberty, and treatment is followed by periods of amenorrhœa. (5) Menopausal symptoms are alleviated. (6) Mastalgia, if accompanied by disturbed menstrual cycles, frequently subsides. (7) No permanent improvement is noted in simple polymenorrhœa. The symptoms of dysmenorrhœa are intensified. (8) There is no effect in pregnancy, and no effect upon normal menstrual cycles as regards interval, amplitude, or duration; no local or constitutional symptoms are observed. (9) It is considered that the effect of the anterior pituitary-like hormone is to cause the ovary to resume a complete and balanced endocrine activity, in place of one that is unbalanced and incomplete.

The extract used in these studies was prepared in the Bio-Chemical Laboratory of McGill University by Professor J. B. Collip.

The End-Results of the Tonsil and Adenoid Operation in Childhood and Adolescence

By J. ALISON GLOVER, O.B.E., M.D., M.R.C.P., D.P.H.
and

JOYCE WILSON, M.B.

(Abstracted from the *British Medical Journal*,
10th September, 1932, p. 511)

1. THE rising flood of tonsillectomy has been shown in the immense and rapid increase in the numbers of operations annually performed, and by the astonishing fact that more than half the most carefully nurtured children in Britain are now subjected to it, whereas forty years ago none of their parents underwent the operation. Whilst the incidence of tonsillitis is at least as high amongst the poor as amongst the well-to-do, the children of the latter have an incidence of tonsillectomy at least four times as high.

2. A review of the literature suggests that, with the single exception of diphtheria, the incidence of the

ordinary infectious diseases is unaffected by tonsillectomy; that while the incidence of recurrent sore throats is perhaps somewhat diminished, that of frequent colds is unaltered, or perhaps slightly increased. The incidence of otitis and mastoid disease is the same, or perhaps slightly increased upon the tonsillectomized, while their liability to bronchitis and pneumonia is also probably slightly increased.

3. The evidence with regard to the prophylactic and therapeutic end-results of tonsillectomy on acute rheumatism, chorea, and carditis is distressingly confusing. There is no sufficient case for the routine removal of apparently healthy tonsils in a rheumatic or potentially rheumatic child, simply as a measure of prophylaxis against acute rheumatism. Removal should only be undertaken if there is some definite indication.

4. Observations have been detailed on the relative incidence of nasopharyngeal infections upon the tonsillectomized and the non-tonsillectomized pupils of a school population numbering nearly 14,000. Most of these pupils were between the ages of 13½ and 18, and belonged to the well-to-do classes. Save for two, with a total of 1,100 pupils, all the schools were boarding schools. Rather more than half of this population was tonsillectomized. Some of the observations cover a period of seven terms, or two and one-third years, whilst others are confined to certain terms of epidemic prevalence.

5. These interim observations (so far as they have gone) give no statistical support to the theory that the removal of tonsils closes an entrance for infectious or respiratory diseases. Hardly any cases of diphtheria have occurred, so that the prophylactic value of the operation in this disease could not be assessed. In scarlet fever, otitis media, and mastoid disease no significant differences were observed. In the two latter diseases the slight differences observed were in favour of the non-tonsillectomized.

6. These observations, based on actual *attack rates* in a school population, generally support the conclusions arrived at by Cunningham from a study of the *histories* of a similar number of somewhat older students. She found that the tonsillectomized pupils gave a history of higher incidence of all illnesses, and suggests that the fact that children who are often ill are those most frequently tonsillectomized may be the explanation. Comparing the proportion of the amount of illness reported before and after tonsillectomy in the same pupils, she suggests that the removal of tonsils had little influence in lessening the susceptibility to most infections.

7. We hold no brief for the retention of diseased or really obstructive tonsils or adenoids, nor do we wish to cast doubt upon the high value of the operation in cases in which there is sure evidence of toxic or obstructive damage. A review of the literature and the epidemiological observations made on a highly tonsillectomized child population suggest, however, that the excellent end-results of tonsillectomy in selected cases have been statistically overweighted by indifferent end-results in cases in which the operation has been performed without sufficient indications as a more or less routine prophylactic ritual. In our opinion, a large proportion of the tonsillectomies now done in children are not necessary, entail some risk, and give little or no return.

Error in Cancer Statistics

(Abstracted from the *Medical Press and Circular*,
New Ser., Vol. CXXXIV, August 31st, 1932, p. 157)

THE statistics heretofore published do not prove, according to Dr. K. Wolff, of Budapest, the assumption that the rate of mortality from cancer shows a rising tendency. A relative rise is the obvious corollary of the fact that the number of deaths from other curable and preventable diseases is diminished; but this means only that no defence against cancer exists because of ignorance concerning its cause, therapy, and its prophylaxis.

The average duration of life is steadily increasing everywhere, and cancer is the disease of old persons. If there are more elderly persons, more reach an age at which cancer is apt to occur. In Dr. Wolff's opinion the apparent increase in the incidence of cancer has been too much emphasised, for the mortality-rate of every disease shows oscillations, and the progressive rise in the incidence of cancer may be merely a natural oscillation. According to Dr. Zalka the error in the mortality statistics of gastric cancer is 31 per cent.; in uterine cancer 7 per cent.; in rectal cancer 19 per cent.; and in œsophageal cancer 130 per cent. His statistics, founded upon the necropsies performed upon patients over twenty years of age in the Budapest University Clinic, show a cancer-rate of 12.52 per cent. between 1919 and 1923, and he holds that these are more reliable than the older statistics. They show no progressive increase of cancer.

Radical Cure of Hernia: Regional Anæsthetic

By J. C. O. BRADBURY, M.R.C.S., L.R.C.P.

(From the *Practitioner*, Vol. CXXIX, No. 4, Oct., 1932, p. 510)

As a general practitioner of nearly thirty years' standing, faced with the operation of a radical cure for a right inguinal hernia of sixteen years' duration, I had to consider the choice of a general or local anæsthetic. Being somewhat subject to catarrh, though rather dubious whether I might move and interfere with the operator's work, I decided on the local and was backed up by the surgeon, Mr. Molesworth:—

In the morning I had a light breakfast and a cup of bovril at 10-30 A.M. My operation was fixed for 2 P.M. At 1 o'clock I had a hypodermic injection of omnopon gr. 1/3, scopolamine gr. 1/150, which in twenty minutes made me feel extremely confident of myself, and by the time I was in the operating theatre I felt somewhat drowsy, but knew exactly what was being done, and at the same time was most comfortable. The surgeon now began small intradermal injections of percain 1/1000 with a tiny hypodermic needle, this being a preliminary to the larger doses of the same which were given with a full-sized hypodermic needle and a large syringe. I had a slight pain when the deep muscles of the abdomen were injected, but this was really very slight. There was again some twinge of colic when the peritoneal sac was injected. I think the full time for the injection took from seven to ten minutes. I was now able to lie quite still whilst the whole of the operation was performed. The surgeon told me I should have a little pain while he pulled on the peritoneal sac and tied it off, but this again was very slight. I did not watch the operation, and was surprised when told that the skin incision was going to be closed.

I was away from the ward an hour, and it is true to say I did not have two minutes' pain or discomfort

whilst the operation took place. When I got back to bed I was quite comfortable, and after an hour had a cup of tea, but felt sleepy for three or four hours after, when the effect of the local anæsthetic began to wear off. I had little or no pain in the wound except when I coughed, when there was the usual tension on the stitches.

I may mention that I had the ordinary operation (Bassini's) and that the after-treatment of remaining in bed three weeks was carried out. Possibly this brief account may persuade others who are now enduring the discomfort of an ill-fitting truss to undergo the radical cure for hernia.

Aphorisms

(Abstracted from the *Medical Press and Circular*, New Series, Vol. CXXXIV, No. 4876, 19th October, 1932, p. 311)

WISDOM is the daughter of experience.—*Leonardo da Vinci*.

Nevertheless, I have always thought it a greater happiness to discover a certain remedy for even the slightest disease than to accumulate even the largest fortune, and whoever compasses the former I esteem not only happier, but wiser and better too.—*Sydenham*.

Living to old age 'goes in families'; and so does dying before old age.—*Paget*.

Never believe what a patient tells you his doctor has said.—*William Jenner*.

The best physician is the most conscious of the limitations of his art.—*Benjamin Jowett*.

Every medical student should remember that his end is not to be a chemist, or a physiologist, or an anatomist, but to learn how to recognise and treat disease, to become a practical physician.—*W. Osler*.

Physical signs in the lungs are signs of physical conditions; their pathological significance is a matter of inference.

The special features of syphilitic eruptions are asymmetry and polymorphism.

All pyrexial states in old people are apt to set up a typhoid condition, because the kidneys are unequal to the task of depurating the blood.

In the typhoid state never use depressing anti-pyretics, e.g., the coal-tar derivatives.

A normal temperature may be present in diphtheria and pneumonia.

In typhoid fever occurring in children, the temperature may be normal or subnormal in the morning (hence the synonym 'infantile remittent fever').

Œdema of the chest wall in the presence of pleuritic effusion is a diagnostic sign of the effusion being purulent.

A high temperature cannot be relied upon to decide the diagnosis between inflammatory and malignant disease.—*A. T. Brand and J. H. Keith*.

Reviews

THE MEDICINAL AND POISONOUS PLANTS OF SOUTHERN AFRICA.—By Professor J. M. Watt, M.B., Ch.B. (Edin.), and M. G. Breyer-Brandwijk, Phil. docta (Utrecht), Apotheker (Utrecht). Edinburgh: E. & S. Livingstone, 1932. Pp. xx plus 314. Illustrated. Price, Rs. 18-12. Obtainable from Butterworth and Co. (India), Ltd., Calcutta.

THE study of the indigenous drugs of ancient civilizations has attracted scientists for a long time. Many of the potent and efficient therapeutic remedies in the armamentarium of the modern physicians are the fruits of enquiry and investigation into the domain of the indigenous medicine of India, China and Egypt. African civilization was shrouded in darkness and mystery for

a very long time, and for want of authentic information on the medicinal plants of that vast country, scientists could not probe into the rich materia medica and folk-medicine of the Hottentots, Bantus, Bushmen and other native tribes of Africa. In the treatise under review, the authors have collected and systematised a mass of information on the medicinal and poisonous plants of South Africa. There is no doubt that the book will be of very great service to all those who are interested in the indigenous drugs of the country and will pave the way for further research and investigation.

The book will also be interesting to those who are working on the indigenous drug problems in India. Many of the 'natural orders' of South Africa are found