Clinical Notes and Cases.

*Blood-Pressure and Mental Disease.** By ROBERT THOMPSON, M.B., D.P.M., Senior Assistant Medical Officer, St. Patrick's Hospital, Dublin.

THE purpose of this paper is to illustrate the clinical usefulness of the blood-pressure record, by referring to a number of cases.

Throughout I shall deal only with the systolic pressure.

CASE 1 is that of a married lady, æt. 50, who was admitted in October, 1926, in her first mental illness. She had a healthy, grown-up family. She had been ill for about four months.

On admission patient was apprehensive and depressed, with vague delusions of "something happening to her children," "some calamity overtaking her family," etc. She was most tractable. Physically patient was undernourished, sallow and "worn-looking," with a yellowish complexion. The systolic pressure was 120. Although tall, her weight was only 7 st. 2 lb.

Patient remained in this depressed, apprehensive and somewhat confused state for about six months, when it was noticed that, in spite of her weight being maintained, she had become considerably weaker. The systolic pressure was again taken and was now found to be 85. An examination now revealed areas of pigmentation over the spines of the lower thoracic vertebræ and left iliac crest, thus giving us the three cardinal signs of Addison's disease—low blood-pressure, muscular asthenia and pigmentation. Patient was confined to bed, as the least exertion was too much for her.

The pressure continued to fall until it touched 73, and it remained below 90 for four months. There was no desire for food, vomiting occurred on several occasions, and the weight fell to 6 st. 5 lb. Suprarenal gland extract was prescribed up to gr. vj *t.i.d.* by mouth as soon as the real state of affairs was disclosed, and, in addition, patient was put on a mixture containing liq. strych. ♏v dose, together with hydrochloric acid and gentian; whiskey ℥ss after meals. Various meat extracts were also prescribed. A blood examination at this time revealed a normal number of red and white cells and no evidence of any grave primary or secondary anæmia. The Wassermann reaction also was negative.

Patient was confined to bed for about five months, during which time the pressure gradually rose to 100 mm. and her strength increased.

Patient is still in hospital. The systolic pressure is gradually mounting and is now 112. Her weight is 8 st. 6 lb., and is steadily increasing. I had omitted the suprarenal gland for a time, but have re-prescribed it. Mentally, patient remains apathetic and mildly confused, although she responds wonderfully well to the visits of her relations. She still complains of "queer noises" in the head—a most troublesome symptom throughout. This symptom, I understand, frequently accompanies states of low blood-pressure.

It is to be hoped that, in spite of the presence of the cardinal signs, the case is not one of Addison's disease.

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In the following case the blood-pressure record gave considerable assistance in estimating the gravity of the physical symptoms:

CASE 2.—Mrs. X—, a married lady, æt. 50, was admitted in May, 1927, in a condition one might regard as delusional melancholia, her delusions being that she was quite "unnatural," that "her heart would never stop beating," that "she would live for ever and could not die like other people," etc. The illness had then lasted one and a half years without any sign of improvement.

Just before admission to St. Patrick's she had simulated recovery so well that her husband was persuaded to remove her from the mental hospital where she was, but the old delusions were expressed on the way home and patient was unable to take any interest in the home. Physically, patient was frail, undernourished and sallow, weighing only 6 st. 2 lb. There were a number of carious and septic teeth.

After ten weeks' rest and tonic treatment, it was thought that patient was strong enough to undergo a dental operation and her teeth were removed under a general anæsthetic. Two weeks later alarming weakness was noticed and the blood-pressure was found to be 85, and it continued to fall until, three weeks later, the systolic pressure was only 73. It now looked almost certain that, in spite of our efforts, there would be a fatal issue, as patient was exceedingly weak, with a thready pulse and a glazed, red tongue. However, with strychnine, brandy, suprarenal gland and full doses of glycerine of pepsin, her strength gradually returned and in less than three months she was able to get up. The pressure fell on several occasions, but always quickly increased on a mixture of hydrochloric acid, pepsin and strychnine.

Patient is still in Hospital. Her weight is now 7 st. 2 lb. (At one time it had fallen to 5½ st.) The systolic pressure is still variable, ranging from 100–120. Mentally the patient also varies from apathy and despondency to alertness and apparent cheerfulness. She is most anxious to go home and take up her domestic duties, but many of her old delusions are still in the background I fear, and her physical state is still far from satisfactory.*

The following case, which I shall report briefly, illustrates, I think, the assistance the blood-pressure record may give in determining the cause of an unduly tedious recovery.

CASE 3.—Mrs. Y—, æt. 61, admitted in August, 1925, in a state of agitated melancholia of three weeks' duration. In spite of considerable depression and agitation, patient always managed to take a very considerable interest in the life of the ward. I did not take the blood-pressure until April, 1927, when the systolic pressure was 180. In August, 1927, I took the pressure again and found it to be 250.

A course of potassium iodide was given and the pressure fell to 210. This was discontinued at the end of two months. Mentally, for the past year, patient has been improving slowly but steadily, and her discharge seemed to be well within sight when, a few weeks ago, she had an ominous attack of giddiness. The pressure was found to be 230. Patient is now resting in bed, taking a mixture of iodide of potash and bromide of ammonia, and the pressure has fallen to 190. The headache and throbbing sensations have greatly diminished. There are no symptoms whatever of interstitial nephritis. The outlook in this case is uncertain.†

CASE 4.—A lady, æt. 51, was admitted in December, 1925, as a voluntary patient. She had come from the Crichton Royal, where she had been a voluntary patient for eight months, but had felt no improvement. She was in a state of mild depression, but her great fear was that she would never recover. A curious symptom

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* Patient continues to improve mentally and physically. Now able to tolerate gr. x ammon. brom. and iron and ars. *t.d.s.* with distinct benefit. Generally cheerful and self confident. Weight 7 st. 11 lb. Discharge on trial within sight. No further improvement in systolic pressure.

† Further severe attacks of giddiness (once with unconsciousness). Pressure now steady around 215. Resting in bed.

was that she would burst into a flood of tears at the least provocation and could become comparatively cheerful again the following minute. The blood-pressure was found to be 190, and, by another observer on another occasion, 206. There were no urinary changes. It was pointed out to the patient that her emotional instability was in great part, if not entirely, due to her physical condition, and that she could never hope to become entirely free from it, but that nothing more serious need ever be anticipated. She accepted this explanation, and left the hospital very greatly relieved five months later. I believe she has done well.

At the request of the Medical Superintendent, Dr. Leonard Abrahamson saw this patient and prescribed riodine perles, 1 *t.d.s.*, p.c., ammon. brom., gr. x *t.d.s.*, a blue pill and seidlitz once a week, and a diet free from soups, ham or bacon, and with little salt, little fluid and only white meat. Dr. Abrahamson thought that this might be a case of interstitial nephritis in a very early stage, as there was considerable cardiac hypertrophy.

The almost involuntary attacks of weeping are interesting. I can recall a similar case where involuntary attacks of laughter were accompanied by a systolic pressure of 300 mm. This was a case of Dr. Hildred Carlill's, which I saw at the West End Hospital for Nervous Diseases in 1924. (I am indebted to Dr. Carlill for further particulars and for permission to report the case.) The attacks of laughter were absolutely involuntary, would occur in the middle of the most serious conversation and were most distressing to the patient. Dr. Carlill writes (14.4.28): "The C.S.F. was healthy; the fundal arteries showed sclerosis. She reacted to KI, opium in small doses, rest and also stimulants. She retained her improvement when I saw her last—a year ago."

A colleague, on finding the blood-pressure of a case of chronic mania to be 200, made further investigations, and discovered that the patient was passing 100 oz. of urine daily, of a low specific gravity, containing a trace of albumen and granular casts, thus establishing an unexpected diagnosis of interstitial nephritis.

In recent cases exhibiting hallucinosis, I have found the systolic pressure considerably lower than normal. Taking seven recent admissions where hallucinosis was, or had recently been, a prominent feature, the average systolic pressure was 110, and the average age 40 years. I am trying suprarenal gland at present for these patients, but I shall welcome other suggestions for raising the pressure in these cases.

Unfortunately some of the pressures recorded in the above cases were taken in the recumbent and some in the sitting position. I now take all pressures, except in cases of extreme weakness, in the sitting position. I use the ordinary clock-dial instrument, checking it from time to time against a mercury instrument.

The systolic pressure was regarded as the moment the pulse was

re-established after obliteration (checked several times). Occasional sharp rises due to the excitement of the operation can be easily detected, as the pressure continues to fall during the operation —each check reading being lower than the previous.

Conclusions.

1. The blood-pressure may shed valuable light on difficult cases.
2. It may give a useful indication for treatment.
3. It may be, in certain cases, an accurate guide to the progress of the patient under treatment.

My thanks are due to the Superintendent of the Hospital for permission to make use of these records.

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*The Treatment of General Paralysis.** By C. B. Bamford, M.D.

During the year 1927, 60 cases of this disease were admitted to Rainhill Mental Hospital. In an attempt to gain improved results treatment was carried out in a more intensive and systematic form than has ever been the practice in this hospital. Malarial therapy was persevered with, but in most cases was modified by the exhibition of tryparsamide.

It was originally intended to precede the malarial infection by a course of tryparsamide given intravenously at weekly intervals. This plan has been carried out, with certain exceptions due to the necessity of maintaining the malarial strain in the hospital.

The effects of this modification of the usual method of treatment have been carefully observed.

Fourteen of these 60 cases were considered to be too far advanced to benefit by treatment, while 10 of the remaining 46 were also admitted in an advanced state and were treated at the request of their relatives, but, as we expected, with very little benefit.

From the point of view of improvement following treatment, the remaining 36 cases have been classified as follows:

Group 1, comprising 13 cases, all of which have been discharged. These cases are considered as having mentally recovered and physically improved—sufficient to warrant their return to outside life.

In this group, 2 of the cases had malaria only and 1 tryparsamide only, but the remaining 10 cases had the combined courses of malaria and tryparsamide.

Group 2, comprising 13 cases. These are considered as showing partial mental recovery with considerable physical improvement.

* Abstract of a paper read at a Divisional Clinical Meeting held at Rainhill Mental Hospital, May 2, 1928.