

*The Blood-pressure in Mental Disorders.* By SIDNEY CLARKE, M.A., M.D.Camb., Senior Assistant Medical Officer, Leicestershire and Rutland Asylum.

THE interesting paper by Dr. Turner published in this Journal (1) upon the blood-pressure in the insane has led me to make these few remarks, which I have based upon a large number of observations (2) obtained by Martin's modified Riva-Rocci sphygmomanometer. I attempted besides taking the systolic pressure to estimate the diastolic also, but my results in the latter case were not satisfactory, for so many likely errors were always present.

It has been stated by certain authorities that the blood-pressure varies in certain forms of insanity, being raised in melancholia and lowered in mania, etc. To this Dr. Turner does not agree.

In the first place it must be remembered that the range of blood-pressure in health is very wide. It lies between 100–150 mm. Hg., generally in the neighbourhood of 120 mm. Hg., hence care must be taken before attributing a small rise or fall in the pressure to any particular cause; a change of 10–15 mm. Hg. from the average should at least be present.

I agree with Dr. Turner that in idiots and imbeciles (without epilepsy) the systolic pressure is low, generally lying around the lower limit of the normal range, and it seems natural that this should be so, for these patients often exhibit other signs of defects in the circulation, such as lividity of the extremities or an increased frequency of the pulse-rate, etc. My sphygmomanometric records were quite in keeping with the general bodily condition of the patients.

In dementia of the aged the average systolic pressure lay at the higher limit of the range, and was quite comparable to that seen in healthy old people. Mental dissolution does not seem to directly influence the blood-pressure. In those cases where there was evidence of cardiac failure the blood-pressure was much lower, and in those with arterio-sclerosis I have obtained both high and low systolic pressures, which confirms the opinion that this pathological state of the arteries is not always associated with a hyperpiesis.

Neither in mania nor melancholia did I find any characteristic change in the average blood-pressure, nor was there any constant alteration with recovery unless it was accompanied with a marked improvement in the general bodily health. In patients after an acute phase of excitement, during which active and vigorous muscular movements had taken place, a rise of the systolic pressure was nearly always to be noticed, and this appeared to me to be comparable to that seen in healthy persons after exertion. But sometimes a fall could be registered which could be attributed to fatigue. This was well marked in one of the patients, whose systolic pressure was generally about 110 mm. Hg. This man one very hot day walked at a great rate round the garden until he was tired, and shortly afterwards his blood-pressure had fallen to 76 mm. Hg. Next day the pressure had returned to the average height.

The finer and purposeless movements of the chronic maniac or agitated melancholic do not influence the sphygmomanometric readings to any marked extent. This form of muscular activity seems to be of an almost automatic nature, producing but little energy, and it is conceivable that the muscles do not require any marked alteration in their blood supply.

Changes in the mental or emotional state alone, unaccompanied by marked restlessness or energetic motor activity, as a rule did not influence the average blood-pressure, but occasionally a small rise was observed. I have not noticed any high pressures in cases of confusional insanity.

My observations (extending over a period of one and a half years) confirm in the main those of Dr. Turner, and I do not think that there exists any definite relationship between the various forms of mental disorders and the general blood-pressure excepting in cases of congenital deficiency, when the pressure is as a rule subnormal. The variations which I was able to record in the blood-pressure were for the most part more satisfactorily accounted for by the changes in the muscular activity rather than alterations in the mental states of the patients under observation.

(<sup>1</sup>) *Journal of Mental Science*, July, 1909.—(<sup>2</sup>) "Observations upon the Blood-Pressure in Mental Disorders," Thesis, Camb.