

Summary.

Experience has shown great practical clinical value of blood-pressure measurements in connexion with a limited number of conditions—namely, arterial and renal diseases, cerebral pressure, pregnancy toxæmias, Addison's disease, and, to less extent, aortic insufficiency. Before attributing pathological significance to the measurements, however, wider normal limits (both systolic and diastolic) should be recognised than those generally indicated in the books. Figures from normal young adults are presented in substantiation of this statement. An important and little-known application of the blood-pressure apparatus is its use in the detection of pulsus alternans. It is urged that systolic pressure be retained as the most important measurement, and that the simple palpatory technic be used.

Blood-pressure determinations in general have fallen short as clinical indicators of circulatory function. Pulse pressure, and consequently the various formulas in which it is involved, depends upon too many factors to be a very useful index for any of them. Great variation is shown among pulse-pressure measurements of normal persons. The same criticism is shown to be applicable in the case of the auscultatory "tone phases."

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FIVE CASES OF RAPID DECEASE IN YOUNG MEN.

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THE five cases described below appear of sufficient interest to publish, partly because of the clinical and pathological details which they individually supply, and partly because of certain accidental features which, notwithstanding essential differences, justify their collection in a group. Their occurrence in comparatively young men in rapid succession—they were admitted to the Connaught Hospital, Aldershot, within one week—is also of interest.

CASE 1.—Pte. F. R., aged 26, was admitted as a case of bronchitis on account of "dyspnoea." No history was forthcoming save that he was said to have been ill for several days. Interrogation was impossible owing to the patient's extreme deafness; he was a sufferer from chronic otitis media. The "dyspnoea" in question was soon recognised to be air hunger, and a provisional diagnosis of uræmia was made, partly upon this feature and partly upon the condition of a heart clearly hyper-

trophied to the left without showing cardiac disease of any kind. No urine was obtained. The blood pressure was not taken. The patient suddenly and unexpectedly collapsed and died within two hours of admission.

Post-mortem.—The kidneys exhibited very little renal substance and were obviously in a state of chronic interstitial nephritis, the weight of the pair being 4½ oz. The heart weighed 18½ oz., and except for great hypertrophy of the left ventricle was normal.

No history of antecedent renal disease was ever obtainable, but the presence of a chronic otitis media suggested the possibility of scarlet fever in childhood.

CASE 2.—Pte. S., aged 30, was admitted the following day, very livid and in a condition of extreme respiratory distress. The dyspnoea being identified as "air hunger" by the medical officer who had been in charge of the previous case, a diagnosis of uræmia was made (with precocious confidence), more especially as the left ventricle was much hypertrophied and the maximum systolic blood pressure was 180 mm. Again no urine was forthcoming, and the patient was far too exhausted to give the history of this or any previous illness. It was, however, noted that the temperature was 103° and that a distinct cardiac diastolic murmur was present. Owing to the patient's intense distress careful examination was impossible. Venesection was at once performed. Death occurred just 35 minutes after admission.

Post-mortem.—The kidneys were found healthy in size and structure. The heart was much hypertrophied, especially the left ventricle; weight 18 oz. The free edges of the aortic cusps were greatly thickened but not ulcerated; the mitral valve showed an extreme degree of button-hole stenosis. The lungs exhibited an early stage of red hepatisation.

This pair of cases seem to us to be an excellent example of two familiar fallacies. The first is the traditional expectation of encountering a second example of some relatively rare condition very shortly after one has appeared. The second is that of diagnosing a case on a general superficial resemblance to something one has recently seen. No amount of persuasion to the contrary will destroy the inclination to rely on a supposed tendency of rarities to run in couples and trios; and although teachers of medicine are perpetually pointing out the folly embodied in the second fallacy, no amount of experience appears to render one immune thereto.

CASE 3.—Pte. K., a German prisoner, aged 32, admitted intensely cyanosed and dyspnoeic. T. 104°. There was a history of a recent illness of a few days' duration. Very few signs were present in the chest. Venesection was performed. Death occurred within 12 hours of admission.

Post-mortem.—The lungs showed acute general bronchitis and congestion. The other viscera were congested, but exhibited no obvious morbid change, save that scattered areas of early necrosis in the liver were visible. A pure culture of a streptococcus was obtained from the lung; culture from the spleen was negative.

Death in this case appeared to be due to a primary streptococcal toxæmia or septicæmia.

CASE 4.—Pte. M., aged 29, admitted collapsed and pallid with a history of frequent copious hæmatemeses. At the time no history of antecedent illness was obtainable, but subsequently it was ascertained that about six months previously hæmoptysis (? hæmatemesis) had occurred. On account of the patient's profound collapse a very incomplete examination was made. Death occurred eight hours after admission, the patient developing coma for the last six hours. In all probability the morphia administered contributed substantially to this state.

Post-mortem.—The dominant feature was a large spleen—30 oz., exhibiting subcapsular hæmorrhages. The stomach showed submucous hæmorrhages, mainly on the lesser curvature. The intestines contained blood from the ileum onwards. The liver was small and studded with numerous yellow umbilicated nodules of varying size. These were shown afterwards to be composed of fibrous tissue, with a peri-lobular distribution. The blood (examined post mortem) contained no myelocytes. A section of the spleen demonstrated the presence of nucleated red cells.

Diagnosis, splenic anæmia.

CASE 5.—Corporal H., admitted as influenza among a large number of apparently similar cases. Routine examination discovered great impairment of the right base, evidently due to presence of fluid. On exploration a syringe of perfectly clear colourless fluid was extracted. This peculiarity, coupled with the feature that the patient was a New Zealander, led to an immediate diagnosis of hydatid of the lung. On examination of this fluid, however, no hooklets were found. On the following day the patient's respiratory distress was very much increased. The heart was pushed over to the left and the presence of a pneumothorax with most typical signs was unmistakable. Death occurred suddenly 24 hours after admission.

Post-mortem.—The right lung was found to be collapsed. On incision the whole of the middle lobe was seen to be occupied by a cyst, which on removal left a cavity 7 cm. in diameter. The lining wall of the cyst was extracted intact without difficulty. The cyst had pointed on the anterior surface, where pulmonary tissue was represented by nothing more than the external wall of the cyst. There was no evidence of daughter cysts. The lining membrane on incision was found to be a unilocular cyst containing some slightly stained turbid fluid. The wall was everywhere covered with granular bodies, shown microscopically to be scolices of *Tænia echinococcus*, both invaginated and extruded. The liver was carefully examined, but there was no evidence of other cysts either in this viscus or elsewhere.