

To my mind Dr. Brownlee gives away his own case for strain differentiation as against physiological and racial differentiation in the production of types of tubercle when, in the paragraph discussing the incidence of phthisis in Wales (p. 64), he writes:—

"In the district of Pembroke itself, that is the district South of Milford Haven, there is little phthisis. This absence of tuberculosis occurs in spite of the fact that the cattle of South Pembroke are largely Short Horn, a breed which is very subject to tuberculosis, while the cattle North of the Prescilly Mountains are of the long-horned black Welsh breed, which is seldom affected with that disease."

Surely if the breed in cattle varies the incidence without presupposing a special strain of bacillus the same should hold good in man. But however this may be, and however we may differ as regards the interpretation of the facts, the fact remains that Dr. Brownlee has conclusively shown that in future phthisis must be divided into three types for investigations if we are to attain to any results, and that his description of the types and their associated relations are clinically correct. Clinically the middle-age type (M.A.) is essentially environmental and certainly can be dealt with, given control of that environment. The question is one of individual resistance and is thus an eminently treatable proposition. At present we have not sufficient evidence to show that this is the case with the Y.A. type, which I regard as largely a question of family and race which will tend to die out with racial intermixture. As far as the British races are concerned the racial strains liable to Y.A. tubercle must be mainly those of Celtic origin, with whose temperamental proclivities we must all be acquainted. We must remember that early tubercle is essentially a nervous disease, or rather that a nervous condition manifestly tends to the loss of resistance which is so serious a factor in those thus threatened.

In considering the geological epidemiology, a necessary factor, clinically a cardinal factor, is the occurrence of lime in the drinking-water. I believe there are considerable grounds for stating that other things being equal people bred and resident in lime districts or those whose drinking-water is impregnated with lime are more resistant clinically to tuberculosis, and this is natural, as lime is Nature's method of combating the disease. I have recently had a remarkable confirmation of this view from Dr. E. A. Wilson, of Keighley, who writes:—

"Half my district is on clay, the other on agricultural limestone. Excluding urban areas, I see large numbers on the clay area and very few in the limestone area. In fact, in the limestone area, a branch dispensary had to be closed from lack of patients, and the few patients in that district do far better than in the clay area."

If these remarks promote discussion from the clinical side of the type problem of tuberculosis their object will have been attained. May I say, in conclusion, that every tuberculosis officer should read Dr. Brownlee's Part III., as it will be found an essential starting-point for all future thought on the subject.

*References.*—1. An Investigation into Epidemiology of Phthisis in Great Britain and Ireland, Part III., Medical Research, by John Brownlee, M.D., Director of Statistics, Medical Research Committee, H.M. Stationery Office, Kingsway, &c. 2. Report of Parliamentary Committee on Tuberculosis; Death and Invalidity in the Common wealth, December, 1916.

I am, Sir, yours faithfully,

HENRY A. ELLIS,

June 14th, 1920.

Ex-Tuberculosis Officer, Middlesbrough.

## CONGENITAL STENOSIS OF THE AORTA.

To the Editor of THE LANCET.

SIR,—We have been interested in Dr. R. O. Moon's case of congenital stenosis of the aorta described in THE LANCET of June 19th. A case resembling it in some respects was recently under our observation, and the variations in the electrocardiograms taken from it make it also worth recording.

The patient was a boy of 10 years, stunted in growth, and complaining of general debility. His mother reported that he showed "blueness of the face when bathing" and that he had not suffered any special illness. His apex beat was in the fifth interspace and was not particularly forcible. A pronounced systolic thrill was palpable over the aortic area. Cardiac dullness was slightly greater than normal at the base and normal at the apex. A systolic murmur was audible at the aortic, pulmonary, and mitral areas, having its point of maximum intensity in the second right intercostal space, and its only direction of conduction upwards towards the carotid. Radial tracing showed pulsus tardus. The physical signs and symptoms strongly suggested congenital stenosis of the aorta.

An electrocardiogram taken on Feb. 10th, 1920, showed the T-wave to be inverted in Leads II. and III., the P-wave was inverted in Lead III., and there was preponderance of

the left ventricle. A second electrocardiogram taken on March 5th showed that the T-wave in Lead II. was no longer inverted, the line between R. and P remaining practically straight. A third electrocardiogram was taken on April 9th, and showed the T-wave in Lead II. to be of normal outline. The other features of this electrocardiogram were unaltered and remained as in the first one. The patient was not under the influence of digitalis at the time these electrocardiograms were taken.

If inversion of the T-wave in Lead II. is invariably a sign of degeneration of cardiac muscle and therefore of grave prognostic import, as it is held usually to be, then the return of such T-wave to its normal outline ought not to be expected in the course of a few weeks. In this relation the post-mortem finding of normal heart muscle in Dr. Moon's case is very significant. Is it more than a coincidence that these two cases, which exhibit inverted T-waves in Lead II. are cases of congenital aortic stenosis and may such a cardiographic feature be considered characteristic of this form of congenital heart disease? We have not observed it in any other type of congenital heart disease, but we should like to learn the experiences of others in this respect.

We are, Sir, yours faithfully,

MURRAY BLIGH,

Honorary Physician, Northern Hospital, Liverpool.

I. HARRIS,

Honorary Physician Cardiographic Department,

June 26th, 1920.

Northern Hospital, Liverpool.

## RACE PATHOLOGY.

To the Editor of THE LANCET.

SIR,—Dr. G. Rome Hall's contribution to race pathology, which appears in your issue of June 5th, is of practical importance. Until recently, when Jewish learned societies took steps to collect statistical facts concerning the Jewish race, most of the references and statistics on comparative racial pathology were obtained from foreign sources, as the sickness and mortality returns of the Registrar-General made no reference to religious or racial factors. Although Dr. Hall has only been able to deal with the Russian type of Jew from the age of 18 to 42, nevertheless his article should lead to much valuable discussion and further study on a subject which is both fascinating and of practical utility.

No doubt it was impossible for Dr. Hall, in the amount of space at his disposal, to go more fully into his subject. Had he been able to do so, his fuller views would have been welcomed on certain defects and diseases which medical literature has shown to be very rare or very common among Jews. The reference is to such conditions as alcoholism, diabetes, gout, myopia, and glaucoma, nerve diseases, surgical tuberculosis, and diseases of the rectum, among other things.

Experience in medical practice, correlated with the experience of others, as gathered from existing literature by those who have had opportunities of studying Jewish morbidity, agrees in many respects with Dr. Hall's conclusions on the racial incidence of disease among Jews. Lack of space prevents entering into many of the causes, apart from what Dr. Hall has already mentioned, that would probably explain the morbid conditions he has outlined in his useful article. There will be dissent, however, from Dr. Hall in certain of his findings. True epilepsy we seldom encounter among Jewish patients, and both Charcot and Worms, from their experiences among hospital patients, point to the rarity of epilepsy in Jews as compared with non-Jews. This rarity may be attributed to the absence of the predisposing factors of syphilis and alcoholism in Jewish parents. The diet of the Russian Jew is excessive in starch, because of the habit cultivated from their Slav neighbours of eating an excessive amount of bread, but Dr. Hall's remarks that the Russian Jewish dietary is deficient in proteins and contained fats which were vitamine-free will be challenged. Reports of investigators in vitamins—e.g., Mellanby,<sup>1</sup> and personal experience in Jewish dietaries, disagree with Dr. Hall's observations.

<sup>1</sup> THE LANCET, April 17th, 1920.