

Short Notes and Clinical Cases

THE BODY TYPE OF THE GENERAL PARALYTIC

By

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THAT the study of personality types initiated by Aristotle and Hippocrates was almost totally inhibited by the development of the germ theory of disease is nowhere shown more graphically than in the study of the reaction of the individual to the parasite of syphilis. Here is a disease the ubiquitous manifestations of which lend themselves to a consideration of the different types of subject afflicted at the different sites of selection. A particularly fruitful source of study should be that small percentage of the infected in whom the central nervous system is diseased. The theory of a neurotropic virus, a favourite preoccupation of the French school, has obtained little credence here. The increase in our knowledge of inherent immunities justifies our expressing the view that the infection of the central nervous system is at least as likely to be due to an innate susceptibility on the part of the individual as to a variability in the causative organism. Yet, while the responsible parasite, and the cytological changes it causes, have been studied so that the phenomena associated with them can be considered well established, little consideration has been given to that personality which must surely play a part, seeing how small a percentage of syphilitics develop the diseases in question.

As to the determining influence which directs the attack of the spirochæte on the central nervous system, little is known. Perhaps more interesting is the speculation as to what innate constitutional peculiarity decides whether the victim becomes a paralytic or a tabetic. The mere statement that the point of attack of the virus is different in the two cases would be sufficient if dementia paralytica were merely a collection of haphazard neurological signs. But it is becoming increasingly held nowadays that the incidence of general paralysis of the insane depends as much on the victim as the virus. A prepsychotic paralytic personality is described. One is able to discover a general high level of competence and 'drive,' even through the obfuscation of psychosis which the patients present on admission to a mental hospital. War experience showed a sudden elevation of the incidence of general paralysis in those exposed to the rigours of campaigning. A statement such as this requires most careful consideration. It should not be taken as evidence of the old theory that stress is to be regarded as an equal

coincident cause. General paralysis of the insane is almost peculiar in being a disease for which a well authenticated organic causation, i.e. the spirochæte, is demonstrable, yet where only a few of those infected develop the signs of the disease. In such a case as this, where the operation of sudden, wholly unusual stress, such as warfare, increases the case incidence, it is reasonable to suppose that its effect is in increasing some innate individual susceptibility, rather than to postulate such a vague and widespread factor as stress as a truly concomitant cause. Were this latter the case the incidence of general paralysis of the insane would be much greater than it is. These, and other factors, point to an inherent peculiarity of personality as being of significance in the production of general paralysis, and justify the study of the general paralytic from the totalist standpoint of the Marburg school. In this short notice one is dealing only with the possibility of there being a constancy of one of the body types, as of Kretschmer, in general paralytics.

I remember a former teacher of mine observing that, given the fact that a group of patients were suffering from these two diseases, it was possible to recognize the tabetics because of their more elongated and asthenic structure, and the paralytics in virtue of their more compact and pyknic structure.

In early days in a mental hospital the writer, visiting sick wards containing patients unfamiliar to him, amused himself by counting, by the exercise of vision alone, the number of general paralytics. The degree of accuracy attained was surprising. One realizes, however, that the enumeration of these patients depended largely on the recognition of that peculiarly emotionless yet ready pleasantry of facial expression which is seen in so many paralytics. But apart from this one had the further intuitive conception that general paralytics displayed, on the whole, a far greater breadth to height proportion, i.e. relatively greater pyknic value, than did tabetics.

PERSONAL INVESTIGATIONS

The inquiry of which this brief notice is given is concerned only with the physical scheme of the paralytics. Unfortunately no control group of tabetics is immediately at hand. In the group of paralytics quoted below, consideration was given only to those in whom the weight had been stabilized for several months.

The cases were investigated by means of height, weight, chest circumference index of Pignet, who quotes—in the three categories of pyknic, athletic, and asthenic—average values and ranges of variation for the index :

Height in centimetres—(weight in kilograms ÷ chest circumference in centimetres).

The following result was obtained :—

	Pyknic	Athletic	Asthenic	Total
Number of subjects	10	10	7	27

As a check on these figures, measurements derived from Kretschmer's tables of typical measurements for the three main types are also utilized. It must be stated quite clearly that Kretschmer utilized no such index as Pignet's. It is just that, as a control, the Pignet index is being calculated from Kretschmer's average figures for height, weight, and chest measurement. This procedure is of value, because body-measurement figures in different communities are available. Average values derived from Kretschmer's measurements are given below, together with the usually quoted Pignet figures.

TABLE II

	Average values for		
	Asthenic	Athletic	Pyknic
Kretschmer (derived from) ...	33·8	15·4	5·3
Pignet	34·3	11·9	-5·5

It is seen that the values for the athletic and pyknic categories give lower averages when derived from Kretschmer's figures. The proportion of the three types, employing these latter, is as given below :—

TABLE III

	Pyknic	Athletic	Asthenic
Number of subjects	8	14	5

The above figures were derived from both sexes, the males showing a preponderance of 17 : 10. The Pignet index is said to be less reliable in females, but the figures quoted below in Table IV (for females alone) show the same tendency, as in the whole group, to a deficiency of asthenic elements, while there is also a proportionately greater development of pyknic elements.

TABLE IV

	Pyknic	Athletic	Asthenic
Number of subjects	6	1	3

The figures derived from Kretschmer's averages are exactly the same.

So far then as what we might call an immediate view of the condition is concerned, dementia paralytica provides no clean-cut accentuation of a single body type. All that can be said is that there is a general paucity of asthenic types.

The most profitable line of study would be to estimate the body types according to the degree of deterioration present. Unfortunately, most of the subjects available were, in this respect, in a stationary condition. In two cases showing an unmistakable general deterioration extreme asthenic scores of 38·44 and 41·37 were recorded.

In 16 of the cases used in this investigation, the measurement indices obtained on admission were available. Of these only five displayed the same body type as on admission, and of these five only two showed any constancy

in their index figures, the others varying by 6, 9 and 9 units respectively. The interval of time between the taking of the two measurements averaged about three-and-a-half years.

In addition, on admission, there was a majority of cases of asthenic habitus, exactly the reverse of the position when the later measurements were taken. The proportions were :—

TABLE V

Pyknic	Athletic	Asthenic	Total
3	4	9	16

The considerable fluctuations of weight in dementia paralytica are seen to cause variations in the index to such an extent that no clear body type emerges. In these 16 cases the average between the index values on admission and at the present time was calculated. Such a procedure cannot claim any considerable accuracy, but at least it is of useful general indicative value. The results derived from it are as follows :—

TABLE VI

Pyknic	Athletic	Asthenic	Total
3	5	8	16

The divergencies encountered in every method of approach lead us to the conclusion that no clear body type emerges in general paralysis of the insane. Personality studies of this disease are not invalidated by such a finding. They must, however, be established from criteria other than those of Kretschmer. Nor do the findings given above necessarily contradict the observations of my teacher already alluded to. Certainly, according to the standards of mensuration, there is no major development of pyknic types ; but this does not preclude the possibility of general paralytics being relatively more pyknic than tabetics.

REFERENCES

- KRETSCHMER, *Physique and Character*.
 WERTHEIMER and HESKETH, *Physical Constitution in Mental Disease*, 1926.