

Ueber die Juvenile Paralyse. By Dr. TONI SCHMIDT-KRAEPELIN.
Berlin: Julius Springer, 1920. Pp. 124, with 9 illustrations.
Price 24 marks.

The value of this book will be apparent from the fact that it provides an elaborate study of all the thirty-nine certain cases of juvenile general paralysis among the 2,184 admissions to the Psychiatric Clinic at Munich in the last fifteen years. Twenty-six of them were males and thirteen were females. To these are added eight cases that were doubtful or anomalous, or in which an erroneous diagnosis was made, and seven cases (some of them from the Kinderklinik) of "pre-paralysis"—children who showed no clinical signs of any metasymphilitic affection of the central nervous system, but in whom serological findings characteristic of general paralysis were more or less accidentally discovered. *Post-mortem* appearances are only very briefly referred to, but the clinical aspects, serology, ætiology and family history have been dealt with in a very searching manner. The discussions under these various heads are liberally besprinkled with allusions to the findings of other investigators, so that the book takes on much of the character of a text-book. Lucidly written and well arranged to permit of easy reference, it is also just the sort of book to stimulate the scientific curiosity of any who have juvenile paralytics under their observation and care. A bibliography is appended giving ninety-nine references to the most recent literature.

Among the multitude of matters dealt with, we may mention a few miscellaneous points of special interest. As regards the serology of the relatives of juvenile paralytics, results are given of the examination of 48 persons belonging to 21 families. A positive blood Wassermann reaction occurred in 5 out of 11 fathers examined, in 14 out of 18 mothers, and in 9 out of 19 brothers and sisters; in 9 instances it was the only evidence of previous infection. Insane heredity is not particularly common in the families of these juveniles, but alcoholism of parents was noted in 20 *per cent.* of the cases. As regards the tendency which other observers have found for a predisposition to general paralysis to be inherited by offspring of the same sex, these Munich statistics provide little evidence; but in two cases—one of each sex—general paralysis occurred in the fathers, and in one female case it occurred in the mother. In reference to the preponderance of males among these Munich cases, the author quotes other evidence to show that juvenile paralysis does really occur more frequently in males, in a way that is unintelligible if congenital syphilis is the only ætiological factor of importance. The birth-rate in the families of juvenile paralytics is, on an average, considerably higher than in the families of adult paralytics. In an investigation of the fruits of 40 marriages, 286 pregnancies were counted (including, however, 25 half-brothers and half-sisters); they yielded 33 miscarriages (mostly about the fifth or sixth month), 14 stillbirths, 21 premature children who did not survive, 91 children who died in infancy, 3 who died later, 9 sickly children, 6 feeble-minded, 69 children (including 10 half-brothers and half-sisters) who were living and healthy at the time of the inquiries, and the 40 who had become juvenile paralytics.

Over one-fourth of these paralytic children showed general arrest of development (infantilism). About a third were mentally deficient. The early symptoms of the disease are usually an arrest of growth and an alteration in the character of the individual. Comparing these juvenile cases with cases of adult general paralysis, the author finds that acute onset, hemiplegias and other focal symptoms and major epileptiform attacks are relatively frequent; they suggest a combination of the disease with brain syphilis—a combination which is often recognisable both clinically and anatomically. Optic atrophy, without other tabetic symptoms, is comparatively frequent. Total immobility of the pupils is commoner than simple loss of the light reflex. As a forerunner of the characteristic speech disorder, there is sometimes observed, in paralytic and in pre-paralytic children, a peculiar, hurried, toneless and puffing way of speaking. Periods of excitement are common in all stages of juvenile paralysis, but an agitated condition persisting throughout is seen in only about 10 *per cent.* of cases. A condition resembling *delirium tremens* is sometimes observable, even in the absence of alcoholism. Increase of abdominal fat, with decrease of fat in other parts of the body, appears often to occur.

A majority of the cases showed "typical" Wassermann reactions in the blood-serum (+) and in the cerebro-spinal fluid (+ - +). A weak reaction in the fluid seems to be associated with a long duration of the illness. In a case in which subsequent microscopic examination of the brain showed a combination of general paralysis with cerebral syphilis, the fluid gave a Nonne phase-1 opalescence, 16 cells per cubic millimetre, and a Wassermann reaction that would be typical for a brain syphilis uncomplicated by general paralysis (0 - +); the reaction in the blood was all but negative. These anomalous reactions may perhaps be explained by the fact that in this case there were extreme rachitic changes in the bones. A non-syphilitic meningitis (*e.g.*, tuberculous) occurring in a congenitally syphilitic individual may lead to the development of a positive Wassermann reaction in the fluid, though there are no syphilitic or metasymphilitic brain changes; the inflamed condition of the meninges permits the passage of antibodies that otherwise would be present only in the blood. Biological findings characteristic of general paralysis are met with in some cases of brain syphilis, and also in some congenitally syphilitic children who appear to be quite healthy. Such findings are probably to be regarded as the first indication of a paralytic disorder that will develop later.

A longish list is given of modern methods of treatment applied in these Munich cases. In one case injections of living cultures of the spirillum of relapsing fever were used, followed by salvarsan; the rationale is ingenious, but the benefit was *nil*. The author says flatly that no therapeutic results worth mentioning are obtainable by any known method of treatment.

SYDNEY J. COLE.