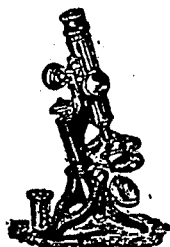


Medical Matters.

SYPHILIS IN RELATION TO DISEASES OF THE NERVOUS SYSTEM.



An interesting address on "Recent Developments in our Knowledge of Syphilis in Relation to Diseases of the Nervous System," was delivered before the South Wales and Monmouthshire Branch of the British Medical Association, by Dr. F. W. Mott, F.R.S., Physician to Charing Cross Hospital. It is reported at length in the *British Medical Journal*.

The lecturer said that the causation of syphilis, and the immediate and remote effects of the living virus is second to none in importance to the medical profession. He devoted the address principally to the effects of the disease on the nervous system, but stated at the outset that the effects of the syphilitic virus are protean, and it is only possible to prognose these effects by experience, and then only in a limited measure, for, in the equation, so many factors come in that the result of infection must vary in almost every individual.

He explained that the virus itself (which is now believed to be a specific organism—the *Spirochaeta pallida*), may vary in its virulence and its toxicity, and that there may be a certain form of virus which produces a special neurotoxin. He then gave reasons which led him to accept this belief.

Dr. Mott believes that the specific virus of syphilis is probably a protozoon, and possibly there may be varieties of this protozoon, some forms of which may be attenuated in their virulence owing to the passage of the organism through the bodies of certain individuals; while other forms may be specially virulent for the same reason, and even acquire a special neurotoxic action, accounting for some of the facts above mentioned. He thinks, however, the ground is more certain in discussing the symptom-complex which will follow infection when it is referred to the vital resistance of the individual himself. This resistance may, roughly speaking, be said to be made up of (1) what a man is born with, (2) what has happened after birth (3) what will happen in the future to resist the action of the specific virus which, in the majority of instances, is of life long duration.

The lecturer explained that the resistance of the animal tissues against the virus of a living contagium depends first upon the laws of heredity, as they affect the specific energies

of the fertilised ovum derived from the conjugation of the two germ cells each with its own specific energies, depending upon species, race, sex, and ancestral stocks, together making a complex which it is impossible to analyse. He showed that the importance of each of these factors is clearly seen in the case of syphilis. For instance, as regards race, he stated that most authorities agree that with the widespread syphilisation of the people, owing to the conversion of a rural into an urban population, the effects of the disease are not so severe, and it is possible that a corresponding tendency to immunity has been brought about; but with it there is an increase in those late manifestations of the disease which are especially met with in the populations of large cities, the degenerative types, or parasymphilitic affections, the most important of which are general paralysis and tabes.

In regard to *ancestral stocks*, the children of parents who have suffered from syphilis, and who have been cured, would in all probability inherit some degree of immunity, leading to mild symptoms following infection, or in some cases to complete resistance to infection, whereas in a family in which for generations no syphilitic infection had occurred, infection would lead to a serious disease. The lecturer stated that a study he has made of a large number of family histories, of juvenile general paralytics, tabetics, and cases of other diseases of the nervous system occurring in the children of syphilitic parents, is most instructive and yet most bewildering in the attempt to solve the question of why one is taken and the other left.

If it were not for the fact that the usual history is either sterility or miscarriage, still births, infants surviving a short period, followed by children which die early in life, there would, Dr. Mott states, doubtless be a far larger number of cases of parasymphilis due to congenital disease. At present, he reckons that about two per cent. of the general paralytics dying in the asylums are of the juvenile type.

He proceeds to prove that syphilis is the essential cause of tabes and general paralysis, and why the usual anti-symphilitic remedies are useless. In the above-mentioned diseases they are positively injurious, because they lower the vital energy in a system which has over-immunised itself against the syphilitic virus. The only hope of doing any good is by an early diagnosis of the disease and suppression of all those exciting causes which use up the nervous energy and tend to overturn the metabolic equilibrium of the central nervous system, causing its premature decay.

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