Cases for Diagnosis of Syphilis of the Nervous System

1921

Among the following four cases there were two in which syphilis of the nervous system was undoubted, but which presented other points of clinical interest, and two in which it became necessary to decide upon the value of a negative Wassermann reaction.

Case 1.—Tabes dorsalis with extreme muscular wasting.—This patient was recently in Dunedin Hospital under my friend and colleague, Dr. Frank Fitchett, and I am indebted to him for permission to publish the notes in this series.

A.B., aged 64, stated to have acquired syphilis at the age of 58, unusually late in life to meet with that misfortune.

At the age of 60 was out shooing in perfectly good health. He suddenly took a "staggering fit" and found himself stepping off to the right while attempting to go forward. He at once gave up and went home.

Since then there has been progressive wasting and loss of power in the arms, but he can give no account of the order in which the segments were attacked. The wasting is confined to the arms, but there is considerable general weakness, and for the last few months there have been pains in the joints of the right leg, and shooting pains in the thigh.

On examination there is extreme wasting of both arms, which are precisely in the condition found in progressive muscular atrophy, and there can be no doubt that there is chronic anterior poliomyelitis on both sides in the cervical enlargement of the cord.

The two arms are not quite symmetrically affected, but nearly so. In the shoulders there is no abduction, the deltoids being both quite wasted, there is slight adduction by the pectorals, the left being a little the stronger.

On the elbows there is no flexion, but extension is possible, strongest on the left. In each hand the wrists and fingers can be flexed together, but not independently, there is a fair finger grip, the wrist flexing at the same time, the left fingers are stronger, but there is better use in the right thumb. There is some permanent flexion of the fingers, especially on the left. There is no active extension of wrist or fingers. There is very marked interosseal, thenar and hypothenar wasting on the left, less on the right, and in the right thenar muscles there is some fibrillary twitching. There is no pain in the arm and no sensory change, and the deep reflexes are abolished.

The neck and trunk movements are merely feeble, he can sit and stand with the head fairly erect.

In the legs there is no wasting, and all normal movements can be performed with some degree of force through fair range. He can stand and walk feebly.

Cranial nerves.—There is diplopia, object one above the other. The pupils are small, unequal and inactive to light, but react to convergence. The other cranial nerves are unaffected.

Reflexes.—The deep reflexes are absent in the legs, there is no knee-jerk or ankle-jerk. The sphincters are unaffected.

Sensation.—There is no obvious loss of sensation in the skin, but the muscle pressure sense in the legs is absent.

Co-ordination.—This cannot be tested in the arms; the heel-knee test is performed accurately in bed, the gait is very feeble, but not typically ataxic, and Romberg's symptom is present in only very slight degree.

The Wassermann reaction was positive.

ISSN 1175-8716

The syphilitic history, the positive Wassermann reaction, the diplopia, the Argyl-Robertson pupil, the absent knee-jerk, the loss of muscle-pressure sense, and the shooting pains do not leave the diagnosis in doubt, but the muscular wasting is present in a remarkable degree for a case of tabes. Muscular wasting of varying extent is not infrequent in that disease, opthalmoplegias probably of neuritic origin are common, and peroneal wasting with inversion of the foot can fairly often be found. This condition, which is quite indistinguishable from progressive muscular atrophy, though rare, must, I think, occasionally occur, for Purves Stewart ("The Diagnosis of Nervous Diseases," 5th edition) figures a case with the note "Progressive muscular atrophy in a man aged 32. The patient also was tabetic."

Case 2.—Menière's Disease of Syphilitic Origin.—C.D., aged 55. Syphilis in youth. Five years ago he had a "stroke," in which there was sudden onset of double vision and staggering gait. This passed off spontaneously, and there was fairly complete recovery in about six weeks.

Two years ago, while recovering from influenza, on getting out of bed, he had sudden confusion, loss of balance and vomiting. The double vision recurred, and has continued along with dizziness, weakness in the legs and loss of sense of micturition. The dizziness is induced by rapid movement, especially in traffic, and there is an inclination to fall forward. In the diplopia objects are side by side, and vary with the position of the head.

Cranial Nerves.—The pupils are small and irregular, the left is slightly larger than the right, they react feebly to light and convergence, there is horizontal nystagmus to the left, the movement beyond the middle line is very ill maintained. There is vertical nystagmus on looking to the right, of smaller excursion, and with better outward movement. The left palpebral fissure is slightly less than the right. There is complete nerve deafness on the right, and a considerable degree on the left. Other cranial nerves are normal.

Motor power in the limbs is normal.

Skin sensation is normal, but muscle pressure sense and vibration sense are diminished in the legs.

Reflexes.—Superficial; abdominal not obtained. Planter response, an indefinite extension, not a true Babinski response. Deep reflexes all brisk. No clonus.

Sphincters.—Some delay in micturition. Defæcation unaffected.

Co-ordination of hands normal, walks on wide base, but nothing else detected.

The pupils, the loss of muscle pressure sense and of the sense of micturition were suspicious. The blood was examined, and returned as "Wassermann + +."

Specific treatment produced some general improvement.

Acute labyrinthitis (Menière's disease) occasionally occurs in syphilis, due to hæmorrhage into the labyrinth. In the attack there is intense vertigo, vomiting, disturbance of equilibration, and well marked nystagmus towards the unaffected side. The severe symptoms subside, but nystagmus persists for a considerable time, and movements of the head produce vertigo; unilateral nerve deafness is permanent: Aldren Turner and Grainger Stewart, "A Textbook of Nervous Diseases."

It is a rare condition; this case appears to agree with the description quoted.

Case 3.—A case for diagnosis.—E.F., a middle-aged patient, complained of some irrelevant symptoms, but on routine examination it was found that the pupils were inactive to light and convergence, and the right knee jerk was absent. There was some frequency of micturition. The deep reflexes in the arms, the left knee jerk and the angle jerks were all present. There was no loss of muscle pressure sense and no inco-ordination.

The Wassermann reaction was negative, both in the blood and the cerebro-spinal fluid, and in the latter there was no excess of lymphocytes.

In this case specific infection was in the last degree improbable, but in the absence of laboratory support an absent knee jerk and inactive pupils would of necessity arouse suspicion, and they remain unexplained. There was, however, no loss whatever of muscle pressure sense, to which the present writer attaches extreme importance in the diagnosis of tabes. The most characteristic symptoms depend on the damage to that

part of the cord which conducts impulses from the muscles. This explains the loss of sense of position, and so the sensory inco-ordination, Romberg's sign, and the characteristic gait. Loss of sense of pressure on the muscles is naturally to be expected, and is rarely if ever absent.

The reactions of the blood and cerebro-spinal fluid, and the absence of lymphocytosis in addition, justified a dismissal of the diagnosis of tabes.

Case 4.—A case for diagnosis.—G.G., a middle-aged patient, had syphilis in youth and was treated by a well known expErt. He has been unable to concentrate on his work for some time, and has suffered from sciatic pain, weakness in the legs and fatigue.

The puils are very small, and do not react to light or convergence. There is deafness in the right ear.

There is slight thoracic analgesia and slight loss of muscle pressure sense in the legs: both there are so slight as to be doubtful. Movements are normal, but there is double flatfoot, and this probably accounts for some unsteadiness in the gait, which is not definitely ataxic.

The arms jerks and knee jerks are present, but one ankle jerk is absent.

Added to this there is slight mental exaltation, and considerable amnesia for words, which together with the pupils, the absent ankle jerk, the dubious muscle pressure sense, and the specific history, make a suspicious combination. But here again the Wassermann reaction was negative, both in blood and cerebro-spinal fluid, nor was there any lymphocytosis in the latter.

This is a case in which one can only accept a negative with some reluctance, whereas in the previous case a positive finding would have caused great surprise. Negative information, of course, will not compare with positive for value, and in this case I feel that the clinical examination, indefinite as its conclusions are, better justifies a positive diagnosis of syphilis of the nervous system than the negative Wassermann reaction justifies the contrary.

URL:
www.nzma.org.nz/journal-articles/cases-for-diagnosis-of-syphilis-of-the-nervous-system