Original Articles.

A CASE OF CEREBRO-SPINAL SYPHILIS.

BY ARNER POST, M. D.

THE following case is presented with the knowledge that it is imperfect, but with the hope that it may prove as interesting to the reader as to the observer:—

J. D., aged thirty-one, Irish-American, of healthy family, and in general well until present trouble. Previous to March 31, 1867, served three years in the regular army, the latter portion of the time as corporal,—important matters of his personal history, as they establish the fact of physical soundness and of ordinary mental capacity.

After leaving the army John led an irregular and useless life; drank very freely, and was in general very dissipated. Had several gonorrhœas, and at some time not easily fixed, probably in the latter part of 1869 or early in 1870, had a venereal sore, followed by a bubo which suppurated and remained open for a year.

This was followed after a time by lumps in the throat and a falling of the hair. He did not consult a physician at this time, but applied nitrate of silver to the primary sore, cut his hair short, and took iodide of potash at the advice of a friend. He says he never had any eruption save a few pimples on his arms. Something, however, sent him once to the dispensary, and he took the contents of a bottle given him there. If he is to be believed the manifestations were very slight, and the treatment was certainly very imperfect. He was now for three years a barkeeper at the North End, and drank more freely than ever, being drunk by his own statement about half the time.

In the spring of 1875, or about six years, as nearly as can be ascertained, after the primary sore, he began to have dull remitting pains in various parts of his body. During the summer he was attacked on five or six occasions with a sudden sharp pain in the small of the back, which seemed to be drawing him backwards and compelled him to lie down to keep from falling. Each attack was of short duration; there was no loss of consciousness nor headache. He noticed after the commencement of the pains that he was dragging his right foot in such a manner that he wore out the tip of the right shoe. He lived at home at this time and was probably temperate, but his walk was so irregular that the boys on the street would cry out that John was drunk again. During this time, and probably before the commencement of these latter symptoms, he had some difficulty of micturition.

In November of the same year, 1875, the following note of his case was made by a physician who saw him: "Intellect below par; eyes dull, expression sleepy; gait labored, shuffling, slightly irregular; inclined to drag right toes; with difficulty stands on one foot with closed eyes; can turn round fairly; sensation in foot normal; slight incongruity of speech. Pulse 75; temperature 99° F. Urine contains no abnormal constituents." The patient is reported as saying that he had noticed a change in his own voice; words were thick and cut short, and he talked "through his nose."

Soon after this record he visited a sister in the country. One morning, after talking with the family until after ten o'clock the preceding night, he was unable to rise and his speech was unintelligible. In the afternoon he was encouraged to get out of bed, but was unable to stand and fell to the floor. In a day or two,

however, he was able to return alone to the city. Nothing could be learned as to the extent of this attack or what members were involved.

He was treated for more than a year at various places, gaining slightly at times, but on the whole with no great benefit, and at last with marked failure. At one time his right arm became powerless, hanging helpless by his side; he regained partial control over it after a time, however.

Was first seen by the writer in the winter of 1876–1877. When first seen he was dressed and sitting in a chair, but was unable to hold himself upright in it; he could with difficulty stand erect for a moment without support; he could walk across the room when supported, dragging both feet, noticeably the right; tottered, and was easily upset. His grasp was very feeble, weaker on the left side than on the right. His mother dressed and undressed him, put him to bed, and fed him. On the preceding night he had fallen out of bed and was unable to return to it till assisted. He had entirely lost control over his sphincters. His countenance wore a vacant expression or a meaningless smile. His speech was thick, not easily understood. All answers to questions were followed by an idiotic laugh. There was a constant flow of saliva. His memory for the principal events of his life was good, and he could generally answer any question requiring a simple yes or no, but he was incapable of any mental effort. He could not give his age, but was very bright in his answers to questions for specific history.

Much of his time was spent in reading newspapers, which he comprehended, at least partially; but he could not repeat sensibly a single item. There was no delirium nor hallucination.

His tongue was protruded in a straight line, and no paralysis of facial muscles existed. There was no loss of sensation noticeable by ordinary methods of investigation. There was no wasting of separate muscles, and no tremor. A very slight cicatrix could be made out at the seat of primary sore; an irregular puckered cicatrix in right groin; aside from these no cicatrices; no enlarged glands; no nodes.

The irregular and progressive character of the paralysis, its union with dementia, in a patient of thirty-one, of probable syphilitic antecedents, made the diagnosis of cerebro-spinal syphilis nearly if not quite positive, and treatment was instituted in accordance with that view.

His improvement was almost immediate, and to a certain point rapid. In a few days he regained control of his sphincters and was able to dress and feed himself; his powers of locomotion returned more slowly, and he continued very silly. He became exceedingly restless, and as soon as he was able to go out of doors would spend the whole day from home, wandering as far as his strength would allow, returning always punctually at meal time.

Soon after he began to walk about the pain in the lumbar spine returned with great violence, and for a few days he walked with his back deeply curved—an opisthotonos—using his cane apparently to prevent falling backwards. His iodide was increased, and this symptom lasted but a few days, when he resumed his former position, still dragging his foot, his mental state improving little if any. What symptoms accompanied this condition of the spine are unknown, as during this time he was never found at home but only seen accidentally as he was walking upon the street.

During the summer he was seldom seen; he continued to take iodide, but irregularly, at times ceasing for a few days altogether. In the autumn he returned to treatment in about the same state as when last seen. He had had no further attack, but had made little if any improvement. He was put upon iodide again, beginning with fifteen grains three times a day, running up rapidly to half a drachm, and more slowly to one drachm.

On the 1st of January, 1878, he dragged his right foot for a few steps, and then raised it for a step. His intellect was somewhat clearer, he answered sometimes with the usual idiotic laugh, and sometimes in a more natural manner.

In the middle of January his laugh was still less marked. An acneform eruption existed on the face.

Dr. Wadsworth was kind enough to make an ophthalmoscopic examination of the patient for me, which was negative so far as symptoms of intra-cranial disease were concerned; he however found evidence of an old iritis in right eye of probable syphilitic origin. The following is his account:—

January 17, 1878.

DEAR DOCTOR, — I examined the man you sent me yesterday. I found in the right eye evidence of former iritis and appearances about the optic nerve which may have been the result of an old optic neuritis or may have been congenital. The left eye was hypermetropic to a considerable degree, and, as he says it has always been, amblyopic. There were no evidences of disease to be seen in it.

The imperfect sight in the left eye I am disposed to believe connected with the hypermetropia, and both congenital.

If the appearances seen about the right optic disk are the result of former inflammation, I should rather regard that inflammation, here, as connected with the iritis which he certainly has had, than as a symptom of organic cerebral trouble. If neuritis were excited by the latter it would most probably affect both eyes. The iritis was probably specific.

I should call the result of my examination, so far as it bears on the existence of organic cerebral trouble, negative.

Very truly yours,

O. F. WADSWORTH.

Under date of _____, 1878, the following account appears:—

"At present he presents a most marked contrast to his former state. He drags his foot, but not so heavily as before, occasionally raises it for a few steps, especially if walking on a level floor. His eye is quite bright; he can talk for several minutes without the vacant laugh showing itself; he can write very intelligibly, probably as well as he ever did. He announces that "he feels better; that his mind is not troubled any longer," and that he could do almost anything he ever did. He remembers perfectly events previous and subsequent to his sickest time, but cannot believe he was ever unable to feed himself. Has noticeably improved within the last fortnight."

In regard to diagnosis the points particularly noticeable are the youth of the patient, the disorderly grouping of the symptoms, and particularly the evanescent and imperfect character of the paralyses, and the necessity of supposing various lesions, widely separated, as points of origin for the various symptoms. Such a history is very unusual, save as a result of syphilis, and even if the history of early symptoms were more imperfect than in the present case or entirely wanting, no other diagnosis would be admissible; the rapid though partial improvement confirms it.

An interesting point in the history of this case is the entire absence of headache and sleeplessness. Pain in some portion of the head of a very severe character is

supposed to be an almost invariable precursor of cerebral symptoms. It is usually continuous, seldom intermittent, and usually without nocturnal exacerbations. Neither the patient nor his friends have the slightest recollection of its ever occurring, though questioned repeatedly in regard to it.

The pain over the lumbar spine was, however, one of the earliest symptoms; its severe character was the same as that usually ascribed to the cephalalgia, and may well supplant it as an early symptom.

The case unites three of the causes usually considered influential in determining cerebral symptoms in syphilitics:—

Poorly marked secondaries.

Irregularly followed treatment.

Irregular, dissipated life.

The first two antecedents may to a certain extent be considered identical. The slight severity of the symptoms being the reason why patients are unwilling to carry out the details of a specific course. That debauchery, and particularly the free use of alcohol, should tend to the location of syphilis in the nervous system seems but a natural result. It is the cause oftentimes of various nervous manifestations in other diseases, it renders the nervous system sensitive to outside influence, and exactly as syphilis often manifests itself at the seat of an old injury in the skin and bones, so it may tend to locate itself in a brain injured by the repeated hyperæmias of free alcoholic stimulation.

Hereditary predisposition to nervous diseases is also one of the determining causes, and it may be interesting to note that the patient's father, during the latter years of his life, was "nervous," according to his wife's story, that is, restless and irritable, less able to apply himself to his ordinary occupation than previously. These symptoms came on after, and were referred to, a blow on the head.

The dose of the iodide under which the first striking improvement was made is quite uncertain; a misunderstanding took place in regard to its administration; it fell far short of the enormous doses often necessary in cases of this character; it probably never exceeded fifteen or twenty grains three times a day. To it was added for a time a small dose of mercury; it was soon suspended, however. When the patient returned to treatment in the winter the dose was run up slowly from fifteen grains to one drachm three times a day, which he is now taking. There is little doubt in my own mind that had he taken at first the amount he was supposed to be taking the improvement would have been far greater.

His appetite was good throughout. No symptom of iodism appeared, save a few acne pustules on the face. The continuance of the very noticeable flow of saliva was suspected to be due to the iodide, but it markedly decreased during treatment.

The actual improvement made in the patient's condition almost surpasses belief. The long time that elapsed before he received continued specific treatment, and its insufficient character for some time after it was entered upon, certainly allowed sufficient time for permanent injury.

Of the later history of this patient I am able to give but little account. He remained in about the same general condition, never recovering sufficiently to assume again his position behind the bar, and finally died, probably some time in 1880. Of the particulars of his death I have no knowledge.