

## Critical Digest.

### SOME RECENT OBSERVATIONS ON PERIPHERAL NEURITIS.

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SINCE the publication of Leyden's paper on Poliomyelitis and Neuritis, in 1880, which was founded on some observations made by Duménil, Eichhorst, and Leyden himself, the number of cases of peripheral (multiple) neuritis related by different authors has become so considerable that we must necessarily abstain from attempting an exhaustive review of the entire literature of the subject; we shall try, however, to give a general survey of the question as it appears in some more or less elaborate works of recent date.

To begin with English work, BUZZARD's monograph: "On some forms of paralysis from peripheral neuritis," treats the subject with all the accuracy and thoroughness that characterises this writer. The little book is divided into three lectures, the first of which contains a more general account of the various forms of neuritis, such as localised forms of neuritis (traumatic, rheumatic); typical (multiple) neuritis; alcoholic, diphtheric, syphilitic neuritis; neuritis from gout; endemic neuritis (kakké or beriberi). Dr. Buzzard justly insists upon the importance of a thorough examination of the electrical reactions in all cases where the presence of neuritis must be kept in view, and he shows in several instances the diagnostic value of this investigation. It is interesting to find here the statement, that a most precise description of typical multiple neuritis (observed in Paris) has been given forty years ago by Graves, in his "Clinical Medicine." He also states that the French pathologists "searched anxiously in the nervous centres for the cause of this strange disorder, but could find none. There was no evident lesion, functional or organic, discernible in the brain, cerebellum, or spinal marrow."<sup>1</sup>

<sup>1</sup> I have no doubt that cases of multiple neuritis might be found under different names in the literature of former years; so I came across an observation mentioned by Prof. Meynert, of Vienna, in a paper called 'Skizzen über Umfang, etc., der klinischen Psychiatrie,' p. 22 (Vienna, 1876): a waiter of most intemperate habits, having caught cold by walking on cold stones at night, complained of violent pain in the legs; is unable to walk (ataxy); paresis of the hands ensues; faradic excitability of muscles diminished; facial paralysis on the right side, dilation of left pupil, articulation impaired, total loss of sensation in both legs; death 55 days after onset of paralysis. Autopsy: Brain and spinal marrow show nothing but slight atrophy of brain and a small degree of hydrocephalus.

In the second lecture we find an accurate description of the causes, symptoms, and anatomy of multiple neuritis, more especially the alcoholic and the endemic forms of this disease. Dr. Buzzard believes that Déjerine's cases of "*névro-tabes périphérique*" must be considered as specimens of alcoholic neuritis, and he points out the difficulty which may occur concerning the distinction of such cases if ataxy, impaired sensibility, pains, absence of knee-phenomenon, etc., form real tabes.

The third lecture is devoted to the rarer forms of multiple neuritis, which sometimes occur after enteric fevers, dengue and malarías, and the well-known diphtheritic paralysis, which Dr. Buzzard considers to be due, in most cases, to multiple neuritis. Then follow some valuable hints about the diagnosis and prognosis of the different forms of polyneuritis, to which are added directions for the treatment of the disease.

Dr. Buzzard's book fully deserves to be studied by all those who are interested in the progress of neurology.

Of the great number of articles on neuritis published in archives and journals, we can only mention a few. ROGER<sup>1</sup> gives a survey of a considerable number of cases observed by several authors, adding a case of his own. This author attempts to identify Landry's acute spinal paralysis with Duchenne's *paralysie ascendante subaiguë*. He says that in the former the progress of the disease is too rapid to allow the development of muscular atrophy; the absence of sensitive troubles in these cases, as in Duchenne's disease, he considers as unimportant for the diagnosis, and he distinguishes therefore two forms of subacute polyneuritis according to the presence or absence of sensitive disturbances. We do not think that the present state of our knowledge justifies this statement; though since Duchenne's, Landry's, Westphal's, &c., publications on the subjects, the microscopical anatomy of the nervous centres has made considerable advances, this question may not yet be decided; from the clinical standpoint sensory symptoms are essential for the diagnosis of neuritis; and the mere fact that in some cases of Landry's paralysis no alterations of the spine and brain have been found, is not sufficient to make us look upon them as specimens of polyneuritis.<sup>2</sup>

<sup>1</sup> "*Des névrites périphériques*," *L'Encephale*, 1885.

<sup>2</sup> That this view is not correct I can show by a case of Landry's paralysis which I observed in Dresden, in August 1884. The patient, an unmarried lady 47 years, had been ill about five or six days, when I was requested to see her. Dr. Hagspiel, her usual medical adviser, told me then that paralysis of both legs had been established within a few days without apparent cause. There was no fever, but great mental excitement. The patient could not move the legs at all; she could not sit without difficulty; there was not the slightest trace of muscular atrophy in the paralysed muscles; both tendon-reflexes and deep reflexes were normal; by a careful electrical examination I could not find any alteration of the faradic or galvanic reactions. Within the ensuing three or four days the upper extremities became paralysed; there was difficulty of breathing, sleeplessness, great agitation. I then ceased to attend myself; but my friend, Dr. Mossdorf, who took charge of the patient, told me that he repeatedly tested the electrical reactions without finding any change, nor was there any atrophy of

An observation published by Strümpell and Möbius<sup>1</sup> deserves special attention, because it proves the existence of exaggeration of the tendon-reflexes in peripheral neuritis. (Buzzard, too, has noticed this symptom in cases of alcoholic neuritis.) The authors found, in two patients, exaggerated tendon-reflexes in both arms and legs, in connection with muscular atrophy, partial R. D., and other indubitable symptoms of polyneuritis; as the patients began to recover, the tendon-reflexes became generally normal. Strümpell and Möbius are inclined to explain this phenomenon by assuming a state of increased irritability in the sensory nerves of the muscles and their neighbourhood; this is the more probable, as in both cases other sensory troubles, pain, anæsthesia, etc., were most prominent symptoms.

A great number of authors have written on the interesting form of neuritis which is not uncommonly observed in intemperate individuals. As a most accurate and elaborate essay on the subject, we have to mention Professor BERNHARDT's paper, "Ueber die Multiple Neuritis der Alkoholisten."<sup>2</sup> After describing a characteristic case of his own observation, Professor Bernhardt gives a detailed account of a considerable series of cases, mentioning more especially the articles of Rich, Schulz, Strümpell, Müller, and Moeli. The author then describes the recent observations of alcoholic ataxy, or "Pseudo-tabes," and their relation to tabes dorsalis; finally he treats the differential diagnosis of multiple neuritis, tabes, subacute poliomyelitis, and Landry's paralysis. When Professor Bernhardt, quoting the well-known cases of Eichhorst, Roth and Broadbent, says that we are entitled to state that after abuse of alcohol there has been observed a form of paralysis, rapidly ending by death, and likely to make the impression of Landry's paralysis even upon an experienced observer, we cannot deny this to be so; but we cannot admit that this form of paralysis has been proved to be dependent upon multiple neuritis until this will have been shown by post-mortem examination of the peripheral nerves in a case of this kind.

FRANCOTTE<sup>3</sup> has observed four cases of multiple neuritis, two of which ended fatally; one of them was that of a patient suffering from pulmonary consumption, in the other case there was no cause at all to be found. Microscopical examination showed in both cases

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the muscles. The patient died suddenly three weeks after the onset of the disease, in consequence of respiratory paralysis. The autopsy was made by Dr. Birt-Hirschfeld, now professor of pathological anatomy at the University of Leipzig. There was no macroscopical alteration in the medulla spinalis; Prof. Birt-Hirschfeld intended to submit the medulla to microscopical examination, but I have not heard what the result has been. At all events, this case proves that Roger's suggestion, that the development of the disease is "*trop rapide pour que cette altération (muscular atrophy) aille temps de se produire*," is not acceptable. I may add that in my case there was not the *slightest sensory trouble* up to the very death of the patient, nor was there paralysis of the sphincters of the bladder and rectum, bed-sore or any of the symptoms of acute myelitis.

<sup>1</sup> 'Münchener Med. Wochenschrift,' 1886.

<sup>2</sup> 'Zeitschrift für klin. Medicin,' 1886.

<sup>3</sup> 'Revue de Médecine,' May 1886.

that there was degenerative atrophy of the nervous substance, more developed in the peripheral parts; the anterior roots and the spinal cord being perfectly normal.

The two other cases recovered; one of the patients was a drunkard; the other, a prostitute, had no symptoms of syphilis.

KAST, of Freiburg, has published a very interesting article in the *Archiv für klin. Medicin* (vol. 40, I.). One of his cases is remarkable for its etiology; the patient, a girl 13 years of age, having had a very slight sore-throat (angina follicularis) which was followed by paresis of accommodation, ataxy, first of the arms, afterwards of the legs, impairment of tactile sensibility, shooting pains; then ensued atrophic paralysis of the interossei and of the tongue with R. D., loss of tendon-reflexes, bulbar symptoms; death nine months after beginning of the disease; multiple degeneration of peripheral spinal and cervical nerves, brain and cord normal.

The second one was a man of intemperate habits; the symptoms of multiple neuritis were combined with swelling of several joints. The patient recovered partially. Kast considers this polyarthrititis as a symptom of polyneuritis, and agrees in this respect with Strümpell. There is a considerable number of cases on record in which painful swelling of joints occurred either in the course of multiple neuritis or preceded the outbreak of the latter. Two observations of this kind have been made in 1883 by Boeck, of Christiania; one of them was combined with purpura rheumatica. Boeck suggested that this latter symptom, as well as the swelling of the joints, is due to an affection of the vasomotor nerves, caused by the same infectious agent which produces the neuritic process in the motor and sensory nerve-fibres. This explanation would be apt to account for those cases where the symptoms of acute polyarthrititis seemed to appear, as it were, alternately with polyneuritis, as it was observed by Grocco and Fusari,<sup>1</sup> and several other authors.

We add, finally, that the statement, first made by Baelz and Scheube, that the endemic disease of beriberi or kak-ké is due to multiple peripheral neuritis, has been confirmed by Tscholowski, of St. Petersburg, who examined, post-mortem, several cases of this disease, and found well-marked degenerative atrophy of peripheral nerves together with slight atrophy of some ganglion-cells in the lumbar region of the cord, which latter alteration he is inclined to consider as a secondary occurrence.

<sup>1</sup> 'Annal. univers. di Med. e. Chirurg.,' 1885.