CLINICAL NOTES
ON
NEURALGIA OF THE SCIATIC NERVE
CAUSED BY SYphilis.

BY
R. W. TAYLOR, M. D.,
PROFESSOR OF DISEASES OF THE SKIN IN THE UNIVERSITY OF VERMONT; SURGEON TO CHARITY HOSPITAL, NEW YORK, ETC.

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It seems somewhat singular, considering how carefully the numerous symptoms and affections of syphilis have been described, that the various manifestations of the action of this virus upon the sciatic nerve have never really been carefully and properly studied, so that to-day we are scarcely more advanced in our knowledge than we were in the year 1859, when Gros and Lancereaux together and G. Lagneau alone wrote extended works on syphilis of the nervous system in competition for the Civrieux prize, which the Imperial Academy of Medicine of Paris awarded to the two first co-workers. As the knowledge of this affection is both important and interesting, I think it is well to briefly present the cases and views of those who have written on this subject before detailing the few instances which have come under my observation. Unfortunately there are on record, as instances of syphilis of the sciatic nerve, cases in which the history is either meager and insufficient or even in some instances open to grave doubt. Indeed, it may be said of some, as it may be said of the histories of many of the putative cases which are reported, that
the only real reason why they are at all looked upon as syphilitic is that an appropriate treatment for that disease has brought about a cure. This point has long seemed to me of such importance, not only as to this but to many other affections, that it required especial attention, but I can here merely allude to it. The error lies chiefly in two directions: first, in a careless or not thorough diagnosis; second, in assuming, certainly very wrongly, that mercury and iodide of potassium, either singly or combined, are absolute specifics for syphilis alone, and have no marked influence on other pathological conditions and lesions. Returning, now, to our study of sciatic neuralgias caused by syphilis, we find that the first mention of this affection is by Baglivi, in 1707, who reports the case of a man whose syphilis is certainly not clearly made out, but who was cured by decoction of sarsaparilla and crude antimony with certain barks. The next writer was Plenck ("Doctrina de Morbis Venereis," Vienna, 1779), who, besides detailing the case of a syphilitic boy, aged six years, suffering with epilepsy, also gives two cases of men having venereal disease who suffered, the one severely the other mildly, with sciatic pain, which was cured by mercurials. In one of these cases, hemiplegia had preceded the sciatica. This writer called the affection ischias venerea.

We find no mention of the affection again until 1803, when Cirillo, an Italian syphilographer, in a work which in its day was of sufficient importance to be translated into both German and French, recognized the fact that general paralysis was caused by syphilis, and gave the history of a case. Further, he published three cases of sciatic syphilis, and says of one: "I have cured in three weeks, with baths and frictions with corrosive sublimate, a young soldier having an atrocious pain in the left thigh, which prevented his moving. This man also presented many other syphilitic lesions." His second case is as follows: A soldier had been for a long time afflicted with deep suppuration of the scrotum and with sciatica. The first trouble was cured, but the neuralgia persisted, and became day by day more unbearable, until he had used five frictions with the ointment of corrosive sublimate. In spite of the absence of full details of this man's syphilis, I am dis-
posed to accept this case as really a genuine one, as the author shows in his book much familiarity with syphilis and acuteness in the recognition of its various symptoms. He used the corrosive sublimate ointment very largely, and speaks of frictions with it as being very efficacious in the treatment of syphilis. Cirillo's third case was that of a young soldier who had been infected with syphilis years before, and who had two nodes on the sternum and one on one of the right false ribs, and who also suffered from sciatica. Thirty frictions with Cirillo's ointment caused the entire disappearance of the nodes, and cured his sciatica.

We find no mention of the affection again, or at least no new cases, until the year 1844, when Courty reported the following case from Lallemand's clinic ("La Clinique de Montpellier," page 2): An African hunter, in September, 1843, had been affected for three years with a violent pain extending the whole length of the left sciatic nerve, and was then unable to mount his horse, and walked only with difficulty. Vesicatories, the moxa, morphine, acupuncture, and various other measures gave no relief. As he had had several attacks of venereal disease, he was placed upon antisyphilitic treatment, which immediately gave unequivocal relief. He took one hundred and fifty Sédillot's pills, and, when the report of his case was published, his condition was so much ameliorated that a perfect cure seemed probable.

The next author who published a case was Lacombe ("Union Médicale," December, 1850), but it is to be regretted that its history is wanting as to the evolution and course of the syphilis. It is as follows: A man thirty years of age, having had intercourse with a woman suffering with constitutional syphilis, experienced severe pain in his bladder. Every time he urinated, at the end of the act, a small quantity of very fetid pus escaped, which was attended with atrocious pain in the course of the urethra. Leeches, sitz-baths, cataplasms, and diuretic drinks afforded no relief. The patient was then further afflicted with left sciatica. Iodide of potassium, with sirup of sarsaparilla, continued for a long time, produced great relief. He then went to the baths of Cauterets, where in addition he drank the waters and applied them to the upper
part of the nerve by the douche, and took baths. In a month he returned almost entirely cured. During his stay at the thermal cure, a tumor of the size of a hen's egg, hard and resistant, developed under the muscles of the thigh, and a month after the sciatic pain returned. The patient was sent back to Cauterets, and three weeks after he suffered no pain. Four years later he was free from it, but the tumor remained. It is idle to speculate upon the nature and even probable immediate effect of this tumor, as the man's syphilitic history is so very meager, being really summed up in the fact that he had cohabited with a syphilitic woman. The remarkable results of the iodide, followed by the thermal treatment, are worthy of remembrance, however, in an affection which often resists all remedies.

A few years after this, Piorry, in his "Mémoire sur les affections du rachis," (published in the "Moniteur des Hôpitaux," page 471), speaks as follows regarding the influence of syphilis upon the vertebrae in a case in which he had recourse with great advantage to the iodide of potassium and to the proto-iodide of mercury. There was a periostitis, or exostosis, of the left transverse process of the third lumbar vertebra. This tumor compressed the corresponding nerve, and caused pain in the sciatic nerve and paralysis of the limb. In a month, under the influence of a mercurial treatment, the process became reduced to its normal size, and the pain and paralysis disappeared.

Gérard, of Lyons ("Union Médicale"), reports the two following cases, quoted by Gros and Lanceræaux: A man, seventy years old, had gonorrhœa at the age of twenty-five, and a chancre on the penis at the age of thirty. When fifty years old he became afflicted with sciatica, which resisted treatment for twenty years. At this time Gérard suspected an unrecognized syphilis of early days as the cause, for the reason that the pain was nocturnal in character. He therefore ordered forty-five grains of the iodide of potassium to be given in four days. On the second day there was amelioration, and in eight days the pains ceased. The objection already urged applies forcibly to this case, which unfortunately is a fair specimen of a class of cases cited by certain French
writers as examples of syphilis of the nervous system. This fact shows how careful we should be in accepting ancient cases, even in works which have come to be standard, such as those of Gros and Lancereaux, Lagneau fils, Zambaco, and Yvaren. Case II. (Gérard).—Madame S., twenty-three years of age, was confined to bed by pains running down the posterior part of the left leg as far as the heel. Several methods of treatment had proved inefficacious; when G., having examined the patient, found unmistakably syphilitic lesions, such as copper-colored spots, nodes, etc. iodide of potassium was given, and the pains ceased in fifteen days. The treatment being prolonged, all of the evidences of syphilis disappeared. Here, although we have a true history of syphilis, we are unfortunately not informed as to the age of the disease, though it is probable, from the number of lesions, that it had not existed much longer than a year. I now present my own cases:

Case I.—S. A., a commercial traveler, well built and healthy, aged twenty-four, came to me in February, 1869, having a small, pea-sized indurated nodule upon the inner surface of the prepuce. This lesion had begun four weeks previously as a small excoriating lesion, which had gradually become hard, and had healed over. The inguinal ganglia were markedly enlarged. In two weeks the body was covered with a sparse roseola, and there were small crusts on the scalp. He suffered also very severely with pain in the left side, rendered worse on deep inspiration; indeed, the act of breathing was for more than a week labored and jerky. He was treated actively with mercurials, and tonic regimen was carefully followed. During the summer, while absent from New York, he suffered from pain in the right leg, which troubled him until his return in the fall of the year. In September his condition was as follows: All the ganglia accessible to examination were slightly enlarged, particularly those of the inguinal region, and there was a slight papular syphilide on the forearms and thighs. The general nutrition was fair, but his strength was not quite normal, and there was slight emaciation. The patient complained of headache, and pains in the course of the right anterior crural nerve and in the sciatic nerve of the same side. All of these symptoms came on gradually about four o'clock each day, and became very violent during the evening and night, so that the patient could not sleep until early morning. The headache was chiefly frontal, and consisted of a dull, boring pain, which was entirely absent during the day. The pain in the anterior crural nerve was of a severe character, and extended from the groin down to the knee, passing toward the inner side of the limb. This pain was sometimes accompanied by a pain of milder character on the right side of
the scrotum. The sciatic pain began about the point of exit of the nerve from the pelvis, and ended at the knee. It was more severe than the crural pain, and was present in a mild, dull form during the whole day, causing some impediment to locomotion. It underwent exacerbations of much severity at night, and really constituted a formidable affection. At this time I questioned the patient closely as to the existence of any neurosis prior to the development of his syphilis, and failed to learn that he had suffered from any. He had never had malaria, rheumatism, gout, gonorrhea, or testicular inflammation. The only indication of previous trouble in his right limb was that, as a boy, he had had a slight sprain of the knee. Etiologically, the only explanation of his neuroses was in the fact of his being syphilitic. Taking, then, the general condition of the patient into consideration, and the peculiar character of nocturnal exacerbation of his neuroses, I concluded them to be of syphilitic origin. He was ordered to use mercurial inunctions (of the strength at first of thirty, afterward of forty grains) twice daily, with nutritious food. While absent, he had consulted a physician in a small Western town, who made the diagnosis of malarial sciatica, and treated him actively with quinine and blisters. The result was failure, as his neuroses continued, and his nutrition became worse. During the first few days in which he used the mercurial, he did not experience very decided relief, though he certainly suffered less than before; but my notes say that on the sixth day he reported in the morning that he had slept the night before, having had very little pain, and having omitted his chloral and morphine solution, which was, however, of slight strength. He used the inunction treatment without interruption for thirty days, during which time he did not suffer from his pains, and his weight increased to the amount of ten pounds. He took for two weeks, with apparent benefit, ten grains of the iodide of potassium thrice daily, and at the end of that period he was ordered to use the inunction treatment four times weekly for a month. On the whole, this patient followed my directions as to treatment with care, and he never after presented any visible lesion of syphilis. In the summer of 1870 he had a relapse, though in a mild form, of the sciatic pain, which quickly ceased under mercurial treatment. He was under my care at intervals, for syphilis, for rather more than three years, during which time he went through interrupted courses of mercurial treatment, which, in my opinion, are the best and surest methods of curing syphilis, and which, if properly administered and followed, will positively cure in the vast majority of cases. He has now been married three years, is in every respect healthy and is the father of two healthy children.

The interesting points in this case are: first, the evolution of two severe neuroses within the first year of syphilis—that is, in the secondary period; second, the fact that their syphilitic nature was wholly overlooked by a physician, who, re-
garding them as of malarial origin, gave quinine in heroic doses without the slightest effect; and, thirdly, the prompt and lasting relief which followed the administration of mercurials, while anodynes and local remedies were merely of palliative effect. Clinically, then, this case is an example of the development of sciatic neuralgia in the early secondary period of syphilis. It warrants the conclusion that, among the various neuroses of secondary syphilis, that of the sciatic nerve may be looked for even as early as within the first six months. Due to the general blood-state, probably originating in some minute change of the nervous centers or peripheral structures, it was a distinct evidence of the syphilitic diathesis in its early, active state. That the affection was not due to a profound lesion or severe pathological change is proved by the fact that it was so markedly ephemeral in its course, and that after its cessation no evidence of structural change could be made out either in perversion of sensation or impairment of function. This is the only instance in my experience of neuralgia of the anterior crural nerve of syphilitic origin, and I think it important to call special attention to it. The pain began at the crural arch, just below Poupart's ligament, and ran down the thigh to the leg, ending at the inner aspect of the knee. It was aggravated at night, of a severe aching or boring character, and accompanied with slight pain on the same side of the scrotum. My friend Dr. Seguin tells me that this neuralgia, whatever may be its origin, is quite rare, and I find that Anstie held a similar view. I have long had a suspicion that excess of use of a part and various traumatic causes often determined morbid changes in it, particularly when of syphilitic origin, and I made the necessary inquiry in this case, but could not obtain any information of any importance in this particular. It is well to note that the family of this patient was not subject to neuroses, and that he himself had never suffered from them.

The next case is also an illustration of the occurrence of sciatica in secondary syphilis, but there are in its history certain peculiar complicating circumstances:

Case II.—The patient, M. F., a thin but well-built mason, came to me at the New York Dispensary in July, 1868, with gonorrhoea in the second
stage. He was very solicitous about his condition, as he now suffered pain in his knee and left sciatic nerve. Three years previously, he had had his first gonorrhoea, which was followed by orcho-epididymitis of the right side and synovitis of the knee-joint of the same side. Besides these troubles, he had had violent sciatica of the left side, which was rebellions to treatment; and this affection and that of the joint had kept him in the hospital for nearly six months. At the end of this time he was left with a slight morning discharge, some stiffness in the knee, and an induration of the epididymis. I treated him with appropriate remedies for the discharge, for the synovitis, which became well marked, and for his sciatica; and he was free from pain in two months. He passed from observation for a year and a half, when he returned to me, having been in the mean time in Mexico and China, with a well-marked indurated chancre. This was in February, 1870. The chancre was of enormous extent, and involved the whole prepuce in a cartilaginous hardness. In April he had a copious papulo-pustular eruption, mucous patches in the mouth, and ethymatous lesions on the scalp. He later on complained of pains in the muscles of the leg, felt severely at night. In July and August he had a relapse of his cutaneous affection, in the shape of large flat papules scattered over the whole body. During this time he complained of pain in his left sciatic nerve. It began with a feeling of numbness of the back part of the leg, experienced during the day. Within a week, the sciatic pain became so severe that he could scarcely move. The exacerbation began toward dark, and at twelve at night, when the affection was most severe, the pain was described as terrible. He had no rest, and, while he was utterly miserable in the supine posture, he could not walk; therefore he spent most of his time lying on his abdomen. His health then became much impaired, and his appetite was wholly gone. I began immediately injections of the bichloride of mercury, each containing one eighth of a grain of that salt, and for the first week gave them twice daily. The result was great relief on the third day. This was in marked contrast with the effect of large doses of iodide of potassium, which he had just before taken during the day, with opiates at night. He followed treatment with regularity until November, when I missed him until the winter. In January, 1871, he returned, having been in the mean time free from sciatic pain, with a copious discharge and inflammation of both epididymis and testes. In three weeks he again suffered from sciatic pain on the left side, which began with a crawling sensation at the back of the leg. About the same time, he felt a stiffness in the region of the right sciatic nerve, which had never before been painful. For two months from this date he suffered much pain in the left nerve both during the day and also at night, but much the more at the latter time. I questioned him closely, but could not ascertain that the pain was worse on the left side than on the right, as the latter became severe. The testicular trouble was cured by local means, and the patient took iodide of potassium and mercury. It was fully three months before he experienced relief, and for months afterward
he suffered from pain in both sciatic nerves. There would then be periods of quietude, in which no pain was felt, but about once in a year he felt pain in the testes; then the left sciatic nerve would become painful. In 1873 he came to me, suffering severely with pain in both nerves (aggravated at night). He was then sallow and cachectic, but there was no genito-urinary trouble. He took mercury and tonics, and followed a careful regimen, but was not relieved permanently until after six months.

This case has always been very interesting to me, as it shows the articular lesion and sciatic pain of gonorrhoea, which was complicated in a marked manner by the syphilitic diathesis. It is interesting to note the decided syphilitic physiognomy, if we may so term it, engrafted upon the sciatica by the general disease, that nocturnal exacerbations were experienced, and that, when syphilitic cachexia developed, the pain in the nerve began and was relieved by mercury. This, then, I think, is an excellent illustration, as showing that the syphilitic diathesis can complicate and perpetuate simple neuroses, and impress upon them some of its own features.

Case III.—The third case was treated throughout the secondary period by my friend Dr. Briddon. In the sixth year of his syphilis, the patient had severe gummata on the arms. In March, 1870, upon arising early in the morning, just as he was getting out of bed, he became dizzy and felt weak in the arm. Being unable to remove his night-dress, his wife in alarm sent for me. When I arrived, within twenty minutes, he was paralyzed in his left arm and on the left side of his face. He complained of great frontal pain and extreme nausea, and was very weak. His speech was very incoherent, and the movements of his mouth were very much impaired. There was, indeed, thickness of speech. His pulse was 110; temperature normal. Aconite and enemata were administered with some benefit, together with thirty-grain doses of iodide of potassium. At night he could not move the arm or leg, and his thoughts were wandering. I had informed his wife of the probability of the greater development of the paralysis of the arm later in the day, and of the extension of the trouble to the leg. Dr. Briddon saw the patient at nine o'clock p. m., and approved of the use of tincture of aconite root, and of iodide of potassium. I followed the case, running the dose of iodide up to one ounce daily for two months, when the patient could walk. I have records of the temperature, pulse, respiration, etc. At times he took chloral and bromide of potassium for pain in the leg at night. In two months he could walk with a very slight hitch in the left leg in bringing it forward. During the following year he suffered at times for long periods with continuous headache; was often dizzy, always somewhat incoherent, but not much
troubled in his speech, and was more or less of an invalid, as his strength was impaired. He attended to his business of horse-trading, however, every day. Within a year of his hemiplegic attack, he began to suffer from pain in the right sciatic nerve. It began with a feeling of numbness at the back of the leg, which soon developed into a pain of much severity. Mercurials were given in full doses with a partial effect. He was cured, or nearly so, in about six months by the employment of mercurial vapor-baths, and the use of iodide of potassium and of various local remedies. He was benefited, indeed the cure was hastened, by a course of natural sulphur-water baths. Here, then, is a man in the sixth year of his syphilis, who has extensive gummata and hemiplegia, which are followed by sciatica. The lesion in the case was, as to the hemiplegia, perhaps due to embolism of the cerebral vessels, but I am uncertain as to the origin of the sciatica. The effect of the mercurial baths was very marked.

Case IV.—My fourth case was treated by Dr. McBride and myself at the New York Dispensary. A man of huge frame, forty years old, and eight years syphilitic, had for six years had extensive gummata on the back. In 1871 he presented a vast space of infiltration in the gluteal region, on the left side, as far down as the lower border of the muscles, where an ulcer fully two inches deep and square in form was seen. When this was at its height he began to have pain in the sciatic nerve. First, he complained of a tickling sensation in the feet, and soon his pain began. The ulcers were actively cauterized, and internal treatment was used. He was cured in six months, but has since had pain at times. In this case the sciatic nerve was in all probability involved in or compressed by the gummatus infiltration.

The remaining case was one of exostoses of syphilis upon the ischium of the right side. The patient was extremely cachectic. The case was simply one of mechanical compression of the nerve.
HEALTH,

AND

HOW TO PROMOTE IT.

BY

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AMERICAN MEDICAL ASSOCIATION; PRESIDENT OF BALTIMORE ACADEMY OF MEDICINE.

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