As to the pathological condition which explains the occurrence of the tendon-reflex in some cases, and its absence in others, we must necessarily be very much in the dark. Such variation must depend, of course, upon the location of the affected regions of the posterior columns. It is quite possible that one of the three kinds of fibres described by Clarke¹ is affected while the others remain intact, and from the fact attested by most observers, that the *funiculi cuneati* are primarily attacked, it seems reasonable to suppose that the horizontal fibres, which probably eventually end in the gray matter of the posterior horns, are those impaired in cases in which the "tendon-reflex" has been extinguished. Pierret² has made autopsies in patients who had died before the disease had advanced far into the first stage, and his investigations prove that the external portion of the posterior columns are primarily affected, and not the columns of Gall. The exemption of these parts, or the affection of the extreme posterior portion of the lateral columns, might account for the presence of a normal or even an exaggerated tendon-reflex, but we cannot say, with all the clinical features, that the disease has not been locomotor ataxia in the various exceptional cases brought forward, and these are certainly a goodly number.

2 EAST THIRTY-THIRD STREET, NEW YORK, December 12, 1878.

A CASE OF GENERAL CANCER INCLUDING THE SUPRARENAL CAPSULES, WITH SYMPTOMS OF ADDISON'S DISEASE.³

BY ROBERT T. EDES, M. D.

MR. G., aged thirty-three, was healthy from boyhood, though not specially robust, and of extremely regular habits. In January last, as it now appears from the recollections of his family and his own statements, he was somewhat less inclined to active exertion than usual, but up to the time of his departure for England in June no one suspected anything more than some depression from constant application to business. His brother-in-law thinks that before his departure he noticed some change in his complexion. When in England he had pain in his back on standing or walking, so that he walked stiff, but nevertheless went on foot some miles per diem. In August he had a severe attack of neuralgic pain in the back, which led him for the first time to consult a physician, Dr. Heslop, of Birmingham, who made a diagnosis of Addison's disease, and prescribed phosphorus with a bitter tonic and a liniment for the relief of the pain. It was felt at this time

¹ British Medical Journal, July to December, 1869.

² Archives de Physiologie, 1872, page 364; 1873, page 74. Quoted by Charcot, 1 fasc. 2 series, 1873, page 9.

³ Reported to the Boston Society for Medical Improvement.

that it was doubtful if the patient lived to reach home, but the voyage was made with no seasickness and no special discomfort. From this attack the patient dated his severe illness, and the history of previous failure of health was obtained only by questioning.

On his arrival here he was seen by Dr. Flint, of Roxbury, who concurred in the extremely unfavorable prognosis which had been given, but made no change in the treatment. I saw him on August 28th, two days after landing. His only symptoms were extreme weakness, pain in the back on standing, and emaciation. He insisted on being up and dressed, and coming to the table for his meals. At this time he went up-stairs alone, though slowly. His appetite was, as he himself said, good, but not so according to the views of the rest of the family. Nothing, however, seemed to cause any dyspeptic symptoms. He had slight nausea but two or three times during the whole sickness. The bowels were regular. At this time I noted that there was no discoloration of the skin except sunburn on the face and hands, a statement which a conversation with his brother-in-law, who had been with him during his stay abroad, convinced me was erroneous. There was a dark-brown streak across the face below the eyes and over the cheek bones. The backs of the hands were also quite dark. The skin of the body was dry and harsh, but I could find no bronzing upon the body, nor the brown patches upon the lips which have been noted in other cases, and which I have once seen myself. Afterwards I found two streaks over the posterior edges of the ilia. The pulse was 104 to 108, regular. The heart's dullness was not enlarged, nor that of the liver or spleen.

The urine examined on the next day was light yellow, of specific gravity 1012, and contained no albumen. A slight flocculent matter floated near the top. It contained a small number of casts of two kinds: one very faint, with a few faint granules and rounded ends; others, more solid and better defined, contained nuclei or leucocytes. There were also strings of mucus and club-shaped masses or casts, as well as leucocytes. Dr. Wood reported a later specimen as containing no excess of indican. The blood was found to present no abnormal proportion of white corpuscles.

It is not worth while to detail the treatment, except to say that he was slightly nauseated by Fowler's solution, which was given up, and that he took small doses of morphia at night to relieve restlessness and cough, which troubled him especially when lying upon his left side. Cod-liver oil was taken until a day or two before death.

A few days after these notes were made he was seen by Dr. Minot, who verified the facts and concurred in the diagnosis. From this time the strength failed rapidly, and emaciation progressed. The discoloration became somewhat deeper. The pulse was in the neighborhood of

120, very weak. For several days before death the abdomen was much enlarged, tense, and resonant, giving rise for the last two or three days to considerable distress.

September 24th. He had become rapidly weaker, the abdomen was much distended, and there was distress in the left side when anything was taken to eat. A subcutaneous injection of morphia relieved this pain for some time. Between eight and nine p. m. he began to cough and raise dark, brownish material, and while doing this died.

Autopsy. At the autopsy a patch of brown color on the side above the ilium was noticed in addition to those spoken of. The body was much emaciated, abdomen tense; its cavity contained perhaps a gallon of serum. The intestines were distended with gas.

On dissecting off the skin from the sternum two nodules were found at its left border, causing elevations of skin, one of which had been noticed two or three days before. In character they corresponded to the growths within.

The abdominal cavity was almost everywhere crowded with masses of pearly-white nodules attached to the peritonæum. They varied in size from a pin's head to a horse-chestnut, and in places—the diaphragmatic surface, for instance—formed a sheet of new tissue.

The omentum was a complete mass of them. On the surface of the intestines they were fewer in comparison, but still quite numerous. The glands along the aorta were transformed into a cancerous mass. In the liver were a considerable number of nodules at various depths, and in the spleen none. One nodule of apparently the same character was seen on the inner surface of the stomach, but the mucous membrane above it was intact.

Both the supra-renal capsules were converted into firm, whitish, nodulated masses, retaining some trace of the general shape of the organs, but nothing like the original structure, with the exception of a few very small spots upon the surface, of a reddish-brown color, but a softened consistence. The kidneys also contained cancerous nodules, a portion of the lower end of the right kidney being disorganized and softened.

In the thorax the pleura, both costal and pulmonary, was studded with nodules of the same character, which were also present in considerable numbers in the lungs. The heart contained them, at the point of the left ventricle, at several places on the auricles, in the interauricular septum; and even on the trabeculæ of both ventricles.

The splanchnic nerves, together with the semilunar ganglia and branches therefrom toward the supra-renal capsules, presented no alterations obvious to the naked eye, except that the ganglia were thicker than sometimes seen. Sections from one of the ganglia hardened in chromic acid were compared with several other specimens, one from a case presumably healthy, another from a case of contracting kidney, and

another from a case of sarcoma of the kidney involving the neighboring structures, including the semilunar ganglia. No well-marked distinction could be made between the sections from the present case and those which were supposed to present no pathological changes. There was no decided increase of the connective tissue, nor even an increased pigmentation of the cells. Some of the cells appeared smaller and more shrunken than in the two first-mentioned specimens, but the change was probably no more than could be accounted for by a longer sojourn in chromic acid, or even an accidental peculiarity.

This case derives a special interest from the bearing which it has on certain theories and statements set forth in Dr. Greenhow's recent work on Addison's disease, the most complete monograph on the subject which has been written. He says: —

“ Were this the only misconception with respect to the relation between supra-renal disease and discoloration of the skin, I might here close my review of this part of the subject; but unfortunately a small number of misunderstood cases have given a certain degree of prevalence to another quite opposite misconception, namely, that any disease of the supra-renal capsules, involving destruction of their tissues, will produce the same effects as the particular lesion characteristic of Addison's disease.”

He has found nine cases of cancer, or so-called cancer, of the capsules with discoloration of the skin, four of these having been published by Addison himself in his monograph. He proceeds to show that in six of these cases the discoloration was not characteristic of Addison's disease, and in none of them were any constitutional symptoms present but such as were due to the disease existing in other organs. The cancerous disease in the capsules was secondary to cancer of other important organs.

In the three remaining cases the constitutional symptoms and bronzing were present in a typical form, but in these the disease of the capsules was not cancer. Two of these, although denominated by their authors cancer of the supra-renal capsules, were at the same time regarded by them as true examples of Addison's disease. The third case also, Dr. Greenhow thinks, presents on the whole a greater resemblance to the lesion in Addison's disease than to cancer. In the next lecture he further states, “ In my last lecture I think it was clearly shown that when the normal structure of the supra-renal capsules is altogether supplanted by cancer, or has undergone complete fatty degeneration, none of the peculiar symptoms of Addison's disease are produced, notwithstanding the total destruction of the organs for functional purposes.”

It seems to me that the present case cannot be disposed of like any of these. In the first place, as to the symptoms, we have the well-marked and progressive weakness, out of proportion to the emaciation,

and not to be accounted for by the existence of general cancer, which had given rise as yet to no other symptoms; the rapid and feeble action of the heart; the discoloration, which I think I do not err in calling characteristic. It was situated on the parts of the body most exposed to the air, that is, the upper part of the face and the backs of the hands, contrasting most markedly with the paleness of the chin and arms; and also at one or two points upon the back exposed to pressure. These parts were of a uniform brown color, which, although at first looking like sunburn, deepened instead of growing lighter, after progress of the disease and cessation of exposure. One person who saw the patient while sitting out-doors said that he looked almost like a mulatto.

His family are perfectly clear not only as to the existence of the discoloration toward the last, but as to its presence before his voyage.

Finally, the diagnosis of Addison's disease was made by the physician who first saw him in England, and confirmed, though perhaps not altogether without reference to the former opinion, by those who saw him here.

There are two points in which the symptoms in this case differ from the more typical cases of Addison's disease. The first is the want of the more prominent symptoms on the part of the digestive organs, such as constant nausea and vomiting, although loss of appetite was noted for some weeks before death, and there had been once or twice some nausea. These symptoms, however, in many cases make their appearance only a short time before death. The second is the emaciation, which was great. This, although unusual, is not sufficiently so to destroy the close resemblance between the present and the typical cases.

In the second place, as to the nature of the disease; the general diffusion of the morbid growth, being found all over the peritonæum, pleura, pericardium, endocardium, lungs, liver, kidneys, and supra-renal capsules, is hardly consistent with anything but some form of cancer, if not carcinoma in the narrower histological sense, at least clinical cancer; but we have in addition the microscopic evidence which makes it cancer even in the stricter sense.

For its origin I think we have a right to look to the capsules themselves, as they were, notwithstanding the extensive diffusion of the disease, the only organs *completely* disorganized, in the others, lungs, liver, and kidneys, the normal structure being largely in excess of the diseased.

Having now before us a case which presents distinctly the clinical aspect of Addison's disease, and which is no less clearly connected with cancer of the supra-renal capsules, I think we have a right to say, even if in contradiction to Dr. Greenhow, that diseases of these organs, other than that cheesy or scrofulous or inflammatory degeneration of the capsules characteristic of Addison's disease, may sometimes, even if rarely,¹

¹ See Ziemssen's *Cyclopædia*, Am. Trans., vol. viii., page 653.

give rise to similar symptoms, — a view which is by no means inconsistent with the theory generally held, that the symptoms do not arise from the loss of function of the capsules, but from an irritation of the abdominal nerves set up by a slow inflammatory, or, as we should say, from any irritative process, in these organs so closely connected therewith.

RECENT PROGRESS IN SYPHILOLOGY.

BY EDWARD WIGGLESWORTH, M. D.

Transmission of Syphilis by the Mouth. — Zeissl adds ¹ to the case recorded in this journal February 28, 1878, three others: —

I. A man applied for treatment for an ulcerating initial-sclerosis, about as large as a nickel cent, upon his chin, stating that his sweetheart had bitten him upon that spot during the act of cohabitation. Neither ulcer nor papule existed elsewhere upon the body. A well-marked maculo-papular syphiloderm soon appeared and ran its usual course.

II. A nurse, after being kissed upon the right cheek, noticed that the spot hardened to a large initial-sclerosis partially ulcerated. After the usual period of incubation, submaxillary adenitis occurred, followed in due time by the appearance of syphiloderma erythematosum et papulosum.

III. A Bohemian girl, aged seventeen years, was admitted into the ward for syphilitic women, December 6, 1877. In spite of an excessive development of peri-follicular and papular infiltration in the genito-crural folds, the inguinal and femoral lymph glands were not enlarged. On the right breast, about one and one half c. m. inwards and upwards from the nipple, was an irregularly shaped, ulcerating, syphilitic initial-sclerosis, the size of a silver quarter dollar, and in the right axilla an unusually large bubo with excessive hyperplasia. The girl, who was quite artless, stated that her lover had seized her with the teeth at this spot during cohabitation, and had sucked there strongly for a long time. A general erythema with pharyngitis and adenitis of the neck was also present. Zeissl refers too to a case, not observed by himself, quoted some ten years since in the *Medical Times and Gazette*, which stated that a policeman was bitten in the finger while arresting a criminal, and that the spot after due time showed an initial-sclerosis followed by the usual symptoms of syphilitic infection.

Syphilis communicated by the Saliva. — Dr. Böttger, of Dessau, reports ² the case of a girl of nine years, apparently healthy, except for nocturnal headache and pain in the eyes. Photophobia, amblyopia, and

¹ Separat-Abdruck aus der Allg. Wien. med. Zeitung, Nos. 2, 3, 4, 1878.

² Memorabilien, 2 Heft, 1878; Allg. med. Central-Zeitung, April 17, 1878.