Robbins (H. A.)

SYPHILIS OF THE ABDOMINAL ORGANS.

By Henry Alfred Robbins, M. D.,
Washington, D. C.

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THIRTEENTH PAPER.

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THIS white woman, aged 20 years, had been sent to us from the throat clinic. You notice she has mucous patches in her mouth, and also that there is specific ulceration of the tonsils and pharyngeal walls. She has induration of the glands of the neck, and also of the epitrochlear. She has nocturnal headaches, pains in the joints, and alopecia. She has a history of a chancre and a bubo and eruptions, occurring five years ago. She has had three miscarriages, and she says that her child, now two years old, was born with the snuffles. She promises to bring her offspring with her when she comes again to the dispensary. It is the same old story, that now you are familiar with. In our last lecture, we went over the literature of the subject of syphilis of the heart and lungs. Out of a large amount of material, I selected what I thought would give you the best knowledge of organic changes which too often are only brought to light on the post-mortem table.

Before calling your attention to specific affections of the liver, spleen, kidneys, etc., we will report the following case of gumma of the esophagus. Berger (*Deutsche Medicinische Wochenschrift*, 1896) treated a patient with this unusual cause of stenosis of the cardia. A man, 55 years old, without definite history of syphilis, but with a history of severe headaches, an eruption without itching and, on coming under observation, enlarged inguinal glands, had vomiting several times a day, usually after meals. This had lasted a year. There was loss of weight amounting to thirty kilograms. The patient would not permit the exploration of the esophagus, but the suspicion of stenosis of the cardia which was raised by the history was confirmed by the usual symptoms of complete obstruction, which appeared a month later. At that time, even the smallest sound could not be passed beyond the cardia and there was a slight obstruction in the upper part of the esophagus. At first it was supposed the patient had carcinoma of the cardia, with a metastasis above. Later on, however, the long course of the disease and the absence of cachexia raised again the thought of syphilis. Potassium iodide was accordingly prescribed. Improvement soon began and in about a month it was possible to pass a sound into the stomach. The obstruction higher up had also disappeared. As the patient continued to improve, the slight possibility of an ulcerating carcinoma became altogether improbable and

the author's diagnosis of gumma will no doubt be accepted. That such obstructions are due to gummata rather than gummatous scars is the general opinion of others who have investigated the subject.

Syphilitic disease of the liver occurs in two forms. (1) Simple interstitial hepatitis. (2) Hepatitis gummosa. These forms may co-exist in the same liver.

The symptoms, pathology and morbid anatomy of simple interstitial hepatitis are those of cirrhosis ; the syphilitic variety of the disease, however, more frequently results in simple induration without the formation of the nodules characteristic of cirrhosis. Hepatic gummosa consists in the formation of white, depressed deposits, having a radiated form, on the surface of the liver and extending to a variable depth into the interior of the gland. In this opaque deposit, whitish or yellowish nodules, varying in size from a hemp seed to a walnut, are found. They are composed of oil globules, cells loaded with fat and fibers of connective tissue, being identical in structure with the common syphilitic node.

Virchow described peri-hepatic lesions and simple gummy interstitial hepatitis. The former never occurs alone, but is generally associated with the latter. The hepatic substance atrophies and the deposit contracting, is eventually absorbed, causing a cicatrix-like mark. The liver lesions are usually among the later symptoms of syphilis and are well described by Virchow and Wilks.

Dr. Teissier relates the case of a boy, fifteen years of age, who came under his care, suffering with ascites ; there was also diarrhea and a slight cough. The diagnosis was made of tuberculosis of the peritoneum, intestines and lungs. Paracentesis was performed several times and the child was put upon a tonic and diuretic treatment, but he sank rapidly and died. At the autopsy there were no tubercles discoverable in any of the organs or nervous membranes. Of all the viscera, the liver alone showed any changes. It was rather small and presented upon its surface yellow nodules, hard as stone and covered with a fibrous envelope. This latter sent out white, fibrous prolongations, following the course of Glisson's capsule and giving to the liver a lobulated appearance. Examination, both macroscopical and microscopical, showed the case to be syphilis of the liver and this was further confirmed by the statement of the parents that the child had acquired " a disease " from his nurse.

Dr. Hanot (*La Tribune Médicale*) described three cases of constitutional syphilis in which occurred hypertrophy of the liver and spleen with chronic jaundice. The clinical symptoms and microscopical examination made in one case (infectious nodules, intralobular capillarity, specific alterations of the hepatic cells) demonstrated that it was a case of infectious hepatitis. Though the same collaboration of symptoms has been observed in different conditions, there exists, nevertheless, a form of hepatic syphilis with chronic jaundice, which may be named " hypertrophic syphilitic hepatitis " and which may be regarded as a special form and is amenable to specific treatment.

Dr. Walter Moxon, who was an early worker in the field of visceral syphilis, found syphilitic deposits in the spleen, consisting of sulphur-yellow nodules of the size of peas, plentifully scattered, deep-seated and fatty in their center. He also found gummata in the pancreas and reported his discoveries in Guy's Hospital Reports nearly twenty-five years ago.

Dr. Haslund of Copenhagen (in the *Vierteljahresschrift für Dermatologie und Syphilis*, 1882), gives the post-mortem records of the Communal Hospital of Copenhagen for a period of fifteen years (1865-1880). Among these he found 154 cases of children who died of inherited syphilis. In 96, the spleen was healthy. In the remaining 58 cases, the spleen was diseased, the change being due to hyperplasia in 55 ; in fourteen of these the consistence of the tissue was normal ; in 31, the organ was harder, and in 10, softer than natural. Further, one case of an infant was noted, one of fibrinous deposit on the serous

surface and one in which there was thickening of the capsule. In none of these three is there mention of alteration in size or consistence. Among these 55 cases of hyperplasia, fibrinous deposits on the surface of the spleen were noticed 19 times, scattered patches of thickening of the capsule 4 times, and adhesions to neighboring parts once. Finally, in three cases, there were miliary tubercles in the spleen, associated with tuberculosis of the other organs. As regards the significance of these changes, the author is of the opinion that the simple hyperplasia must be considered to be in direct relation with the general disturbance of nutrition caused by syphilis ; but whether it be a cause or a consequence of the cachexia must remain doubtful until the functions of the spleen are better understood. The other changes noted are considered to be directly due to syphilis. Among the 154 cases there was not one of amyloid degeneration and in only one were gummata mentioned in the report. The author also examined the post-mortem records of forty-four adults who died during the course of syphilis in the department of the hospital during the same series of years. In three of these there was amyloid degeneration of the spleen. This change, Dr. Haslund thinks, is always dependent upon chronic suppuration either in the superficial tissues, in the bones, or in the internal organs. Of the three cases just mentioned, there was old necrosis of the scapula and clavicle and suppurative pylonephritis with calculi in the pelvis of the kidney and left ureter in the third. Among the 44 cases there was no instance of gummata. In 10, the spleen was healthy ; in 27, there was more or less hyperplasia, the organ being softer than natural in 11, and firmer than natural in 16 ; scattered thickenings of the capsule were noticed in 2 cases and adhesions to the surrounding parts in 4 cases.

In a former lecture I called your attention to diabetes insipidus occurring in syphilitics and gave as a possible cause the presence of a cerebral gumma. Dr. Sidney Philips (*British Medical Journal*, 1883) stated that " in all the cases where a growth had been found as the cause of polyuria, it had been situated at the base of the brain." An interesting case is recorded in the *Annales de Dermatologie et Syphilologie* several years ago by Dr. LeMonnier, of a patient, aged 50, who for five months had been suffering from diabetes and passing sugar in his urine to the extent of 70.80 grammes per liter. His condition was becoming serious and the symptoms were increasing in severity, when suddenly he developed a gumma of his pharynx which subsequently ulcerated ; this, of course, proved the presence of a syphilitic taint, although the patient had previously denied all knowledge of this disease. From the time that the gumma appeared the case was treated with iodide of potassium. At the end of eight days there was great improvement in the local affection and, remarkably enough, the amount of sugar in the urine had fallen to 27 grammes per liter. The treatment was continued and, after the lapse of three months, the ulceration of the pharynx had cicatrized and all trace of sugar in the urine had vanished. The author observes that, although the occurrence of syphilitic diabetes has not been disputed by Fournier, Lécorché and others, still the case is worthy of publication owing to the fact that the usual diabetic treatment yielded no definite relief and that the complications and progress of the disease were immediately arrested as soon as antisyphilitic remedies had been administered, resulting in the cure of the patient.

The *Therapeutic Gazette* of February 15, 1897, contains a very able editorial article on renal syphilis, in which attention is called to the teachings of Rayer —that symptoms of nephritis occurring during the administration of mercury are due to the drug and not to the disease. Various authors were quoted, who varied most widely in their conclusions.

" The symptomatology is, however, clearly understood. Early secondary syphilis of the kidney develops usually about two or three months after a chancre, the first symptom often being edema

or unusual frequency of urination. Associated with this there may be headache and general digestive disturbances. The urine on examination shows albumen, blood and epithelial, and hyaline and granular casts. Under treatment, resolution is prompt ; without treatment the acute nephritis is likely to become chronic.

"The pathological changes are those characteristic of acute nephritis. The affection seems to be vacillating and in its course closely resembles scarlatinal nephritis.

" The late nephritic lesions are characterized by symptoms absolutely like those of chronic nephritis. Pathologically, the kidneys are found to show amyloid degeneration, interstitial inflammation and the development of gummata ; these various changes are often associated. The amyloid change seems to be the most common one.

" Wielander (*Archiv für Dermatologie und Syphilologie*), after an exhaustive study of the question, concludes, in regard to nephritis of secondary syphilis, that although a slight specific albuminuria may occur with the outbreak of secondary syphilis or during recurrences in this period, this is rare. It is very rare to find an albuminuria demonstrable to nitric acid and it is extremely doubtful whether this is really a symptom of parenchymatous nephritis. As to the later periods of syphilis, occasionally there develops an interstitial nephritis under such circumstances that casual relation between it and the specific constitutional disease is probable.

" In the later period of the disease there occurs in exceptional cases an afebrile kidney affection characterized by a dirty-brown, turbid urine, containing a slight amount of albumen, blood and epithelial cylinders and a large quantity of detritus. This affection of the kidney occurs when gummata are breaking down in other portions of the body and diminishes and disappears under specific treatment, together with the other tertiary symptoms. It is probably due to the breaking down gummata in the kidney.

"Mercurial treatment, especially when it is pushed, causes cylindruria, at times albuminuria, which may be slight or severe according to the idiosyncrasy of the patient. The absence of cylinders and albumen in the urine does not show failure to absorb mercury. It is only by examination of the urine and the feces for mercury that the amount which is absorbed can be determined. The cylindruria and albuminuria caused by mercury are transitory and do not predispose to subsequent kidney affections.

" When nephritis has developed, especially the parenchymatous or the interstitial variety of the disease, mercury must be given cautiously ; during the course of nephritis, mercury is eliminated largely through the feces, at times abundantly through the kidneys, but always to a minimal extent through the saliva.

" The prognosis of nephritis occurring during the secondary period of the disease is nearly always favorable. Tertiary nephritis is of a gummatous type, yields as promptly to specific treatment as do gummata in other parts of the body. When degeneration has proceeded to complete destruction of secreting substance there can be no restoration of tissue, and specific treatment avails only in preventing further extension of trouble.

" The communication of Wielander again raises doubts in regard to therapeutics which seemed in a fair way to be cleared by recent records of syphilosis.

" His conclusions, based on a thorough study of the matter, seem to show that nephritis, due to secondary syphilis, is rarer than that occasioned by full doses of mercury. The important lesson to be drawn from the study is that examinations of the urine should always be practiced in cases of syphilis ; that when albuminuria and cylindruria are observed, the practitioners should carefully consider as to whether this is not due to drugs rather than to the disease for which the medicine is administered ; that toxic effects occur readily when the kidneys are crippled, and hence mercury must be administered with extreme caution. It seems scarcely

necessary to state that in addition to specific treatment, cases of syphilitic nephritis should receive the hygienic and hydro-therapeutic and medicinal care appropriate to inflammation of the kidneys when it is due to other causes."

In a former lecture we called your attention to the dangers as well as virtues of mercury, and also of iodide of potassium. Next to the brain, heart and lungs, the renal filters are the most important organs of the body. The hydraulics of nature wear out slowly, but they respond to the lubricating specific treatment, when syphilis clogs the working gear. When a physician meets nephritis in an adult, he would do well to think of the possible origin of the renal difficulty in view of the great number of cases of unsuspected syphilis.

Whenever I hear of a miraculous cure of Bright's disease, as a result of a certain notorious quack medicine which is known to contain a large per cent. of iodide of potassium, I think that a physician has gone astray in his diagnosis, and that the germ of the disease was of specific origin, giving rise to the train of symptoms identical with those of fatty degeneration of the kidneys.

Nephritis due to Hereditary Syphilis.—According to the opinion of Audcoud (*Revue Médicale de la Suisse Romande*, 1896), renal alterations may be present from birth in cases of hereditary syphilis, perhaps oftener than is currently believed. The lesion may appear in the form of gummata, of acute parenchymatous nephritis, of amyloid degeneration. These lesions may be manifested during life by the usual symptoms of nephritis; anasarca, albuminuria, anuria, vomiting and uremic convulsions, and may lead to a fatal termination. It is important to recognize early the etiology of the cases, in order to institute appropriate treatment promptly and effect a permanent cure.

Dr. Hock showed at a meeting of the Medical Club (Vienna), an infant, the second child of a syphilitic mother, who eight weeks after its birth showed a syphilitic erythema, which disappeared under the influence of proto-iodide of mercury. Later the extremities and penis began to swell, and an examination of the urine showed albumen, hyaline casts, and white and red corpuscles. Other symptoms of syphilis disappeared under the use of iodide of potash.

In 1878, Dr. L. P. Yandall of Louisville, Ky., reported in the MARYLAND MEDICAL JOURNAL, May, 1878, a case of syphilitic albuminuria, which is of great interest. The patient was an intelligent German, sixty years of age, and was an inmate of the Louisville City Hospital, December 1, 1873. "He was a subject of general dropsy, and on the card over his bed was written albuminuria." His pale, waxy-looking skin, puffy eyelids, constant indigestion, slight bronchitis, disturbed vision, hemicrania, pain in the back, muscular debility, and frequent nocturnal micturitions, all confirmed the diagnosis, and examination of the urine showed it to be excessively albuminous and abundant in tube-casts and renal debris.

Deriving no comfort from treatment, and, indeed, growing gradually worse all the time, and having no hope of recovery, he begged to be allowed to desist from treatment, and the request was granted at the end of two weeks. The patient's nose had the "saddle-shaped" appearance so often associated with tertiary syphilis, where the nasal bones have come away. This, with other indications of syphilis, decided the doctor to give the patient the therapeutic test. He prescribed a scruple of the iodide of potassium, to be taken in skimmed milk or water, every three hours when awake—the doses to be increased ten grains each, every day till iodism, gastric disturbance, or relief of symptoms, should occur. He took, on several occasions, an ounce of the medicine daily, and never had any discomfort from it. Iron and bitter tonics were given at the same time. His improvement was marked at the end of a few days. The throat rapidly healed, his strength, appetite and color returned, and the urine ceased to evince any sign of renal disease. In two months he was well.

Syphilis of the Periosteum and Osseous Structures.—Druitt alludes to a patient

who had perforations—due to syphilis—of both tables of the skull, with protrusion of brain substance, through apertures in the skull, and who recovered from this condition, and lived many years, with paralysis and neuralgia of the opposite limbs. Such aggravated cases, as he remarks, are fortunately very rare. The same author gives the most concise and accurate description of the osseous structures that I have ever read, viz :

" Syphilitic disease of the periosteum and bone most frequently attacks the tibia, ulna, cranium, clavicle, ribs and other superficial bones. It commences with tenderness of the affected bone, and severe pain, which begins in the evening, and lasts almost all night, but ceases in the daytime. The pain is shortly accompanied with oblong swellings, called nodes, arising from infiltration of the periosteum, with gummy exudation. These swellings are rather tender ; they communicate a doughy feeling or obscure sense of fluctuation to the fingers; the skin over them is at first pale and movable. If the disease be arrested at this stage, it causes merely a superficial deposit of rough porous bone (syphilitic exostosis) ; or else a consolidation of the bone itself through the deposition of fresh osseous matter into its cancelli. If the disease proceed further, the deposit between the periosteum and bone undergoes mucous softening, producing an exquisitely painful fluctuating tumor. If it goes on, the bone may become carious ; matter forms between it and the periosteum ; extensive exfoliations ensue ; the patient suffers severely from the pain and discharge ; if the disease be seated on the head, death may ensue from irritation of the dura mater, or protrusion of the brain through apertures in the skull. It is usually the outer table only which perishes ; yet there may be perforation of both tables, and the brain may protrude through apertures in the skull."

We have endeavored to make you acquainted with every manifestation of syphilis. We have presented patients that have illustrated every form of syphiloderm, and have described the pathological changes which take place, when the disease attacks internal organs.

In our next lecture, I hope to take up the toxine of syphilis—the poison produced by the undiscovered germs, and which is the product of the primary and secondary stages, known as the tertiary stage.