

Basedow's disease.

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New York Neurological Society.
Royal College of Surgeons of England

Publication/Creation

New York : New York Neurological Society, [1887?]

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admitted into the Roosevelt Hospital on May 25, 1887. She was a widow, forty-seven years of age, a housekeeper. Both the personal and family history were good. Two years before, she had begun to complain of palpitation, dyspnœa upon exertion, and swelling of the throat, which was largest upon the right side. She could not lie upon that side. In the course of a year the eyes began to protrude, and at the time she entered the hospital she had a profuse watery diarrhœa. The pupils were found to be equal, and the reaction to light and to accommodation were good. The lids did not follow the eyeballs. The neck measured thirteen inches around the lower thyroid region, and ten inches and a half around the upper thyroid region. There was dysphagia to solid food. The pulse was from 100 to 120, and the respiration 38. The apex-beat was found in the fifth space, in the nipple line. There was epigastric pulsation and the area of dullness was slightly increased. There was a short systolic murmur at the apex. There was a systolic thrill over the jugulars, also a continuous venous hum. The pulmonary resonance was exaggerated. The veins of the retina pulsated, but the arteries did not. There was no tremor. The patient lived until May 31st. She suffered from watery diarrhœa and restlessness, but was not otherwise sick. In walking to the bath-room one evening, she fell dead on the floor. The autopsy showed the thyroid reduced in size, but still moderately enlarged and of a pink color. The kidneys showed a trace of fibrous tissue, but otherwise the organs were normal. There was apparently nothing abnormal in the medulla nor in the sympathetic or vagus nerves. Microscopic examination of these parts also showed nothing.

Dr. W. O. MOORE had seen twelve cases, all in women of the average age of forty years, the youngest being thirty-one and the oldest forty-five. Ophthalmoscopic examination had simply shown enlargement and tortuosity of the blood-vessels. Great relaxation of the bowels had been present in one of the cases, as many as ten evacuations taking place in the day, which it was impossible to control. Electricity had been of no avail in these cases. All had

presented the three characteristic symptoms, exophthalmia, thyroid enlargement, and rapid action of the heart. All had shown the symptom to which Von Graefe had first called attention, namely, a disturbance of the usual co-ordination of the movements of the eyeball and the upper lid, so that when the patient looked downward below the horizontal meridian the lid no longer followed the eyeball in its motion, but halted in its course. This fault in the action of the lid was supposed to be due to some defect in the orbicularis, and was not present in patients having prominent eyes from other causes. Occasionally the prominence was so great as to cause the eye to be exposed at all times, whether the patient was awake or asleep. In one case in his experience suppuration had occurred and the eye had been lost. The patient, aged forty-five years, stated that when a child she had lost the sight of the right eye by an accident, and that one year before coming under observation, she had noticed commencing enlargement of the neck, dyspnœa upon exertion, and prominence of the left eye. Six months later, vision for near objects began to fail, and four weeks before coming under notice the left eye had become painful and inflamed. An examination, December 13, 1886, showed in the right eye phthisis of the bulb, total corneal leucoma, and exophthalmia so marked that, although the eyeball was atrophied, the lids were as full as in the usual healthy state. The eyelids on this side covered the globe fully when shut. In the left eye the exophthalmia was so great that the lids were retracted to their full extent and the eyeball was dislocated through the commissure of the lids. The ocular conjunctiva was chemotic and the cornea was cloudy through its whole extent. At the upper border of the cornea there was a serpiginous ulcer; in other words, there was a keratitis from loss of nutrition and exposure to the air. The pulse was irregular at 110. The patient was admitted into the Post-Graduate Hospital, the outer canthus was cut, hot-water applications were made, and the parts were protected by lanolin. In spite of treatment, perforation took place, with escape of the vitreous and lens. The eye began to recede and phthisis bulbi developed. Had

this case been seen earlier, the speaker would have united the upper and lower lids, thus covering the eyeball. At the end of a few weeks the lids would have been reopened, when, as a rule, the exophthalmia would be found improved and the corneal trouble removed. For constitutional treatment the patient should receive digitalis, ergot, and tonics. This case was remarkable from the facts that an eye was lost by suppuration and that this loss was associated with phthisis in the other eye. The loss of an eye from exposure was so rare that the speaker knew of but ten reported cases in this country; while Wells had reported only one case.

Dr. STARR said that the fact that no lesion had been found in the sympathetic in Dr. Roosevelt's case did not, of course, prove anything conclusive. Ross had reported eight cases in which such lesion had been found out of twelve cases, as far back as 1882. The pathology, however, was not clear. It was difficult to understand how any one lesion could produce all the phenomena of this disease. The hypothesis accepted by Gowers was that of lesion of the vagus nucleus in the medulla. The rapid pulse would be accounted for by the loss of the inhibitory power of the vagus. It was known, too, that vaso-motor disturbances were produced by irritation of the medulla in this region. The speaker had some time since collected twenty-one cases of lesion of the medulla, in eight of which the lesion was in its upper part, in the region of the nucleus of the tenth nerve. In all those cases there were subjective flushings and objective increase of perspiration, while in the thirteen in which the lesion was in the lower part of the medulla there were no vaso-motor symptoms whatever, thus substantiating the hypothesis of the physiologists that there was a vaso-motor centre in the medulla and that this centre was in the neighborhood of the nucleus of the tenth nerve.

The speaker had personally observed seven cases, five in the female and two in the male. In all but one palpitation of the heart had been the first symptom. This disproved the theory that the goitre was primary, and that the other symptoms were due to the pressure of the tumor upon the

pneumogastric nerve. The pulse had ranged between 90 and 155. In all but one the eyes had been prominent. In six there had been nerve symptoms, in four tremors, in four Von Graef's symptom, and in six flushes. Mental disturbance had been present in one case, in which there had been delirium every night for several months, and subacute mania for several weeks. The first symptom in this case had been insomnia, which resisted treatment. The speaker supposed it to have had its origin in a condition of the vessels of the brain similar to that in the back of the eye and the thyroid gland. Digitalis had done no good in his experience. Ergot and bromide had quieted the tremor, but no drug which he had tried had reduced the action of the heart. He had used electricity according to Benedict's recommendation, but without result. He had himself, when in Vienna, watched the treatment of three cases in which Benedict had given a good prognosis, but had failed to find any reduction of the pulse while the galvanism was being used. In his own cases he had tried every method described as galvanization of the sympathetic; he had placed the poles upon either side in front of the sterno-cleido-mastoid, behind the sterno-cleido-mastoid, and at the back of the neck and at the epigastrium, carrying the current as high as nine milliampères, which was as strong as could be borne with a small electrode, and he had never been able to produce any retardation of the pulse. Dr. Janeway had expressed himself as having had the same experience.

Dr. A. D. ROCKWELL had met with about thirty cases of this disease, and in nine cases he had observed an approximate cure. He had employed diet, galvanism, and very full doses of digitalis, bromide of zinc, ergot, and iron. He had authentic records of his results. He believed that the cases not benefited by treatment were organic, and that those benefited were functional in origin. Those having all the cardinal symptoms were more often responsive to treatment than those in which the symptoms were more incomplete. He recalled a case in which there was a pulse of 110 reduced to 80. There was puffiness of the eyelids in that case. In the galvanic applications one pole had been placed

over the eyelid, and the other behind the sterno-cleido-mastoid muscle at its upper third. In another case the pulse had ranged from 130 to 150 for several years. There was dilatation of both pupils, and there was a pulsating swelling over the solar plexus. This patient was placed upon the use of a milk diet and persistently treated for many months, when the pulse fell to below 100, and the swelling of the thyroid and the exophthalmia had become less.

Dr. STARR asked whether Dr. Rockwell had observed a reduction of the number of the heart-beats while the current was being used, also whether he had ever seen paling of the face and dilatation of the pupils—phenomena which followed galvanization of the sympathetic when needles are used.

Dr. ROCKWELL replied that he had not made his observations during the application, but that subsequently such slowing had been demonstrated. Lowering of the pulse was also a very common result of general faradization.

Dr. JACOBY considered exophthalmic goître a rare disease. For eight or nine years he had seen in his dispensary from six to seven hundred neurological cases a year. Not more than twelve of them had been cases of exophthalmic goître. The patients had been regular in attendance and the treatment had been persistent, but he had tried every means heralded without result. Subaural galvanization had been without effect upon the color or the pulse. He considered the disease a hopeless condition. Bodily and mental rest constituted about all that could be done. He had tried faradization according to the recommendation of Vigouroux, but also without result. He thought the exophthalmia the least constant symptom. Where goître was present, one side of the neck was usually larger than the other. Some said that the right was always the larger. This he could contradict, as in a case which he had recently seen with Dr. Birdsall the enlargement had been equal upon both sides. Von Graefe's symptom was not always present. Tremor was often the first symptom. In one case in his experience tremor had existed for a year before the development of the other symptoms. At the end of the second year these had become well developed, and bronzing of the skin also

was present. Vigouroux had stated that the electric resistance was diminished in all cases, and even in the commencement of the disease. This, if true, would be an important diagnostic point. In twenty cases Wolfenden had also found this lowered electrical resistance. Histories of two of these cases had been published in full. In one of the latter the resistance was only 300 ohms. It was mentioned that there was profuse sweating in this case. In the second, the resistance was 200 ohms. Of this case it was said that there were clamminess of the surface and sweating. In the other eighteen cases the resistance was from 500 to 1,300 ohms. The speaker said that the standard of resistance, however, varied according to the method used. It had been given as 300,000 to 400,000 ohms by Jolly; Gärtner gave it as 30,000 to 40,000; and here we estimated it at a third or a quarter. He had recently tested the resistance in three cases, his method having been to place the body in the circuit, the electrodes being equal in size and wet. When the galvanometer needle ceased to be deflected, the body was taken out of the circuit and a resistance coil inserted until the deflection of the needle was again brought to the same point. The amount required equaled the resistance of the body. Comparative observations were at the same time taken upon himself. The first case was that of a woman, twenty-eight years of age, with exophthalmia, palpitation, and sweats. The resistances obtained were as follows:

Through the palms,	-	-	-	{ Patient, 6,000 ohms;
				{ Self, 8,000 "
Through the goître,	-	-	-	{ Patient, 1,200 "
				{ Self, 2,400 "
Through the posterior part of the				{ Patient, 1,400 "
neck,	-	-	-	{ Self, 2,400 "

The second case, Dr. Birdsall's, presented goître with palpitations and exophthalmia, and the comparative observations were taken upon Dr. Birdsall and himself. The resistances obtained were as follows:

Patient, through the hands, 5,000 ohms; through the goître, 800 ohms; through the posterior part of the neck,

1,000 ohms. The measurements in himself were respectively, 5,500, 2,400, and 2,000 ohms, and in Dr. Birdsall, 8,000, 1,000, and 1,000 ohms.

In the third case the resistances were :

	Patient.	To control subjects.
Through the hands	5,000 ohms.	11,000 and 10,000 ohms.
Through the thyroid	1,000 ohms.	4,000 and 3,000 ohms.
Through the neck, antero-posteriorly..	1,500 ohms.	3,000 and 3,000 ohms.

The reduction was thus scarcely a quarter, certainly not a half, and not more than would be accounted for by the maceration of the skin due to the abundant perspiration in these cases, or, as in the goître, to the fluxion of blood. The speaker failed to see how any importance could be attached to the test as a symptom.

The PRESIDENT was surprised to hear that there was any dispute in regard to the possibility of lowering the pulse by galvanism. In a case of Basedow's disease in Bellevue Hospital a pulse of 140 was found lowered fifteen or twenty beats after the current had been applied. The sedative effect of galvanism was generally admitted, though we could not say whether it was produced through the pneumogastric or through the sympathetic nerve. Dr. Starr's theory he thought incorrect. Lesion of the nucleus of the pneumogastric should give the same symptoms as division of its trunk, and this never gave rise to the phenomena of Basedow's disease. It might perhaps be said that this disease was due to lesion of the nucleus of the pneumogastric and neighboring parts. He thought that the resistance was diminished in these cases—at least slightly, perhaps 1,200 ohms. In testing he placed one electrode on the region of the seventh vertebra and the other on the sternum.

Dr. ROOSEVELT had had the same experience as Dr. Starr and Dr. Jacoby. He had used both strong and weak currents without any influence on the sympathetic nerve. He was surprised to hear digitalis recommended. He be-

lieved that digitalis was without value for heart failure except from organic disease. He had had five cases of exophthalmic goître under observation. Two of the patients had improved, but both were young anæmic girls. The measurement of electrical resistance he thought a difficult problem, because the factors varied.

temporary in character, and on November 8, 1893, thyroidectomy was performed by Dr. B. F. Curtis at St. Luke's Hospital, the right lobe of the thyroid being removed. The patient made an uneventful recovery, and during the four months that have elapsed since the operation there has been a steady improvement in all her symptoms. The pulse-rate now ranges between 96 and 110. Many of her nervous symptoms have entirely disappeared. She sleeps well, does not suffer from palpitation and is able to attend to her house-work. The eyeballs are much less prominent. The left side of the thyroid has diminished in size to a slight extent since the operation.

A CASE OF EXOPHTHALMIC GOITRE; THYROIDECTOMY.

Presented by Dr. ROBERT SAFFORD NEWTON. The patient was a girl, aged twelve. In this case almost complete extirpation of the thyroid was performed, only a small supernumerary lobe being left. Since the operation, the exophthalmos, which was very pronounced, has almost entirely disappeared. Before the operation the pulse-rate was 180, and the child suffered from cyanosis. The systolic and diastolic heart-sounds were almost synchronous. The operation was performed by Dr. Fowler on October 21, 1893, and the child was out of bed three days afterwards. Her pulse now averages about 100. She is able to attend school, and is much improved in every way.

The PRESIDENT stated that the absolute contrast between the symptoms in exophthalmic goitre and myxœdema makes it seem very probable that many of the symptoms of the former disease are due to an excessive secretion of the thyroid gland, just as those in myxœdema are due to its suppression. Up to the present time, there are not enough cases on record to permit us to make definite statements regarding it.

A CASE OF PROGRESSIVE MUSCULAR ATROPHY OF THE PERONEAL TYPE.

Presented by Dr. GEORGE W. JACOBY. The case was that of an illegitimate child, a girl, aged twelve years. The mother states that the child's father was a large,

well-proportioned man, but that he was rejected for military service abroad because his muscles were weak. This is the only hereditary factor obtainable. The history of the case, in brief, is as follows: There was no trouble at the child's birth. When two years of age, some months after an attack of measles, she complained of pain in the lower extremities, which was so severe that she could not stand. This lasted about six weeks, and from that time on she appeared to have difficulty in walking. She has always been able to move her legs in every direction. When she was four years old, it was noticed that one leg was weaker and thinner than the other. About one year ago, it was first noticed that there was an atrophy of the thigh on the side opposite to that of the affected leg. She holds the legs in a stiff and clumsy position. There is a lack of symmetry between the two buttocks. She has marked lordosis and slight lateral curvature. The muscles of both thighs are in a continual state of unrest, almost like fibrillary twitchings. The right foot is in equino-varus position. There are no sensory disturbances. There is partial reaction of degeneration in the affected muscles. The arms are not affected. The superficial reflexes are normal. The tendon reflexes are present, but somewhat reduced on the affected side. In conclusion, Dr. Jacoby said that while he regarded the case as one of progressive muscular atrophy of the peroneal type, it was not absolutely a typical one, inasmuch as the atrophy, although, bi-lateral, is a symmetrical, one leg being affected and the opposite thigh.

Dr. B. SACHS said he agreed with Dr. Jacoby's diagnosis of the case. The atypical distribution of the atrophy should not militate against the diagnosis, as that is really the last thing to be considered, although still so much insisted on by many writers. The distribution of the atrophy is largely a matter of chance. He had seen six cases of progressive muscular atrophy of the peroneal type—which is, perhaps, the rarest form of the disease. In none of these was there a crossed distribution of the atrophy, as in Dr. Jacoby's case.

A CASE OF HYSTERIA, WITH PECULIAR EPILEPTOID ATTACKS.

Presented by Dr. BOOTH. The patient was a male; aged 22; jeweller; a native of Germany. During the

NERVOUS DISORDERS AND SECONDARY SYPHILIS; HYSTERIA; EPILEPSY; NEUROSES OF THE SYMPATHETIC. Prof. Fournier (*Journal de Méd.*, p. 202, 1888).

Secondary syphilis incontestibly has a modifying or productive influence upon various neuroses.

Hysteria which for a long time has been dormant is often reproduced by the syphilitic virus.

Epileptic attacks also become more frequent under its influence.

Can secondary syphilis primarily produce these disorders? As far as hysteria is concerned, this is certain. Hysteria is often seen to occur for the first time simultaneously with syphilis, occasionally in persons hitherto normal, generally in those of a neuropathic constitution. These disorders are usually hysteroid, and not true hysterics, and disappear with the cure of the syphilis. There are exceptional cases, in which the secondary syphilitic stage is characterized by the occurrence of epileptic phenomena.

Cases are also mentioned which show the occurrence of true epileptic attacks coincident with the occurrence of the secondary symptoms, and which disappeared with the cure of the syphilis. Under these conditions only "grand-mal" occurs, never "petit-mal," and mental symptoms are never observed. The prognosis is good, and the treatment that of the primary disorder.

The sympathetic system may be influenced in various ways by secondary syphilis. Caloric disorders occur either as localized or general coldness. Coldness of the extremities, of one arm or leg, may prove sufficiently annoying to prevent the patient from working. Continuous chilly feeling without increase of temperature is frequent. These disorders are generally tenacious, and last from five to six weeks or even several months.

The viscera may also be affected, and visceral neuroses produced. Dyspnœa, occurring in attacks and lasting several minutes, is rare. Palpitation of the heart with precordial oppression occurs more frequently. Irregularity of the heart's action is also encountered. Disorders of the digestive system are much more frequent, particularly in women.

The gastralgie and dyspeptic occurrences show nothing of particular interest. In certain cases the syphilis produces vomiting analagous to the vomiting of pregnancy. This may be coincident with the gastralgia, or there is gastric intolerance without pain in which everything is rejected by the stomach. Comple anorexia, similar to hysterical anorexia, also occurs. In such cases inunctions must be employed. In contradistinction to anorexia, bulimia occurs in the early part of the secondary stage. The duration of the latter disorder varies from a few weeks to several months, and is generally the sign of a severe form of secondary syphilis. The specific treatment must be energetically pushed. Hydrotherapy is also of value.

G. W. J.

ETIOLOGY OF BASEDOW'S DISEASE. Société Médicale des Hôpitaux, meeting of May 14th, 1888 (*Gazette des Hôpitaux*, p. 519, 1888).

Rendu relates the history of a patient who has been under observation for ten years. A young woman, æt. 28, always well until her eighteenth year, when she became chlorotic, with severe cardiac palpitations, vertigo, and symptoms of cerebral anæmia. Under treatment she improved, then married and had two children. Severe domestic troubles. In the spring of 1877, shortness of breath in ascending stairs, pain in walking, and severe pains in the shoulder; angina pectoris; frequent attacks during five to six days. Rendu prescribed iodide of potassium, two grammes daily. She improved greatly, but presented symptoms of iodism; became loquacious; complained continually of feeling too warm, and showed generalized symptoms of arterial excitement. Soon all the symptoms of Basedow's disease appeared, minus the goitre. Rendu believes that in this case there is a relation between the administration of the iodide and the appearance of Basedow's disease.

G. W. J.

HYPNOTISM AT THE NANCY SCHOOL. Dr. Bernheim (*Gazette des Hôpitaux*, p. 337, 1888).

The Nancy doctrine of the phenomena of hypnotism has so frequently been misrepresented that B. here gives the