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NERVOUS DISORDERS OCCURRING DURING VARIOLA.

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FROM reading the report of an interesting case of general paralysis consequent upon variola, reported by Dr. Goss in the JOURNAL for May 8th, I was induced (as I hope other physicians will also be, whose field of observation during the past epidemic has been larger) to report briefly another case of nervous disease occurring under somewhat similar conditions, although of a different nature from his.

James English, blacksmith by trade, was attacked on the 10th of December, 1872, with the usual symptoms of variola, which soon became so severe that he lay for several days without consciousness. On the eighth day of the attack, consciousness having begun to return, he noticed that his right shoulder felt heavy and unwieldy. At the same time he began to suffer from severe pains, generally deep-seated and of a dull aching character, which extended from the spine to the top of the right shoulder and down on to the upper part of the arm. After three or four days, the pain began to abate and gradually disappeared. On first leaving his bed, in the fifth week of the disease, the patient found himself unable to raise the right arm above the shoulder, and, in short, with complete paralysis of the right serratus magnus, or, properly speaking, of the posterior thoracic nerve, and in this condition he came, four weeks later, under my observation in the Out-Patient Department of the Massachusetts General Hospital. At this time, the posterior thoracic nerve which supplies the serratus had lost its power of responding to faradization, and the rhomboid muscles of the same side and the lower part of the trapezius responded less readily than those of the opposite side. The fact that so few muscles were affected even at the outset, together with the fact that the electrical excitability of the nerve had disappeared, rendered it certain that the thoracicus posterior had been so injured somewhere in its course as to cause its peripheral extremity to undergo degeneration; and that, since the rhomboids were somewhat affected, it seemed probable that the seat of the lesion was at the level of the scalenus medius which the two affected nerves perforate in company, both of them being formed, one wholly, and the other

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in part, by fibres from the fifth dorsal nerve. No other nervous disturbance was to be found. The patient was treated for two months with large doses of strychnine, given by the mouth, and with galvanization of the affected nerves and muscles, but, except that he learned to use his arm more skilfully, he became no better.

Reports of nervous disorders after variola as also after the other exanthemata are occasionally met with in literature, though but little light has been thrown until recently upon their pathological anatomy.

Eulenburg* refers to a number of cases reported by Gubler, Freind, Leroy d'Etiolles, Contone, Reynand, Pidoux. The lower extremities were generally attacked alone; sometimes, however, the soft palate, the bladder, the rectum, also. The paraplegia was generally accompanied by anæsthesia, sometimes in the beginning by hyperæsthesia. There was opportunity for but two autopsies which gave negative results. Most of the cases ended in complete or partial recovery after two to six months. Eulenburg had himself observed a case of partial paralysis of the left facial and both median nerves in which the electrical reaction was but little changed, and the course of the disease was favorable.

Rosenthal† of Vienna, reports a case where variola was followed in six months by progressive muscular atrophy.

An epidemic occurring in Berlin during the winter of 1870-71, gave opportunity to Prof. Westphal of observing a number of cases of great interest.‡ Two of these (*both light as far as the variola was concerned*), in which there was almost complete paraplegia appearing on the third and eighth day, respectively, ended fatally; one from perityphlitis, the other from cystitis with decubitus; and the autopsy showed in both diffused myelitis, spots of softening of the size of a pin's head being scattered irregularly throughout the spinal cord. Five of these cases as well as a similar one reported by Pforzheim,§ were characterized by:

1. Ataxia and tremor in all four extremities and the muscles of the face, present only during the performance of some act requiring voluntary coördination.
2. Slowness and awkwardness in movements.
3. Involuntary repetition of single movements, especially those of the fingers.
4. Slow, monotonous, explosive manner of speaking, with faulty articulation and without modulation of the voice.
5. Mental depression.
6. Temporary congestions in different parts of the body, especially the head.

In short much the same set of symptoms as characterize disseminated sclerosis of the brain and cord.

* *Functionelle Nervenkrankheiten*. Berlin. 1871.

† *Nervenkrankheiten*. Erlangen. 1870.

‡ *Berliner Klinischer Wochenschrift*, Nov. 18, 1872.

§ *Schmidt's Jahrbücher*. No. 1. 1873.

Westphal suggested that in these cases there had been diffused myelitis, which had in fact finally resulted in sclerosis; and his idea was strengthened by the results of an autopsy made by Erbstein in a similar case occurring after an attack of typhoid.

Breganze* reports a case of aphonia coming on during variola in the height of the fever, but yielding finally like hysterical aphonia to a single application of electricity, leaving, however, a degree of stuttering behind. He considered the cause to be cerebral atony, due to exhaustion from the disease.

In this connection a case may be mentioned† where a patient became suddenly comatose after an attack of measles, and remained, after the coma had passed away, with loss of coördinating power in all four limbs, such as has been referred to above.

Two cases were observed by Dr. Hitzig during the epidemic in Berlin, which closely resemble the one which I reported at the outset. In one of them, there was severe neuralgia with partial motor paralysis in the parts supplied by the nerves of the brachial plexus on both sides; in the other, neuralgia of the arm and shoulder, with paralysis of the deltoid alone, on one side only. Where the paralysis is thus circumscribed, the opinion seems to be that hæmorrhage has occurred among the fibres of a nerve trunk, as has sometimes been found after typhoid, and the diffused myelitis may have a similar origin, although it is noticeable that the cases in which these paralyzes occur, are not necessarily of a severe or a hæmorrhagic form. In both of Hitzig's cases, the paralysis came on very early in the disease, and was certainly not due to exhaustion.

A writer in the *Arch. de Physiologie Normale et Pathologique* (January, 1873) remarks, in referring to Westphal's cases and reporting an analogous one, that he had examined the spinal cord in a great many ordinary cases of variola, but had never noticed anything abnormal.

INTERNATIONAL MEDICAL CONGRESS.—The third annual session of the International Medical Congress will be held the present year at Vienna, during the Exposition. The Congress will convene, under the patronage of the Archduke Rainer, upon the 2d of September, and the session will last until the 10th. Meetings will take place each day (Sundays excepted), from 9, A.M., till 1, P.M. Upon the first and last day of the session, Prof. Rokitsansky, being president of the executive committee, will preside. For the other days, the presiding officers will be chosen by ballot. The other members of the executive committee are Professors Sigmund, Hebra, Benedikt and Schutzler.

* Allgem. Med. Central-Zeitung. Dec. 7, 1872.

† v. Centralblatt for Feb. 15, 1873.