

the histories of a number of cases which illustrated the symptoms mentioned. In some of these the diagnosis of ataxia had been made.

The society then adjourned.

DIAGNOSIS OF DISEASE OF THE SPINAL CORD.—In the Society of Physicians and Physicists, Dresden session, February 9, this year, privy councillor Dr. Erdmann delivered a lecture on the diagnosis of disease of the spinal cord.

After some introductory remarks regarding the progress of anatomical knowledge of the diseases of the cord and its congruousness with clinical observations, the author proceeds to consider some accurately characterized groups of symptoms, from which one may diagnose definite diseases of the cord as to the *gait*; the author distinguishes the *paralytic* gait, which, dragging along, like that of great weariness, belongs to certain forms of chronic myelitis; further, the *atactic* gait with hesitating movements, and the well known uncertainty of patients in turning about, and, finally, the *spastic* gait, caused by reflected muscular tension.

Among other symptoms Erdmann mentions the changed condition of the *tendon-reflex*, which is increased in lateral sclerosis, and diminished in tabes, where it is at times entirely absent; further, the *trembling* during intentional movements—the so-called intention trembling; then the *disturbances of voice and deglutition*, as especially characteristic of bulbar paralysis, the atrophies of the optic nerve, diplopia, formication, especially in the uinar region; the pain in the heel and the gastric crises to which Charcot attaches so much importance.

Complicated cases and certain transition forms produce also complicated groups of symptoms, whose significance is not so easy to determine and to explain, in which we must still have refuge in a spinal irritation, which, though not anatomically founded, nevertheless certainly does exist.

Besides *spinal pain*, which always presents as the first symptom, all other possible symptoms may occur, as in organic diseases of the spinal cord. Congestions cause pains in the region of the spinal column, which, however, do not increase with pressure upon the spinal processes; and, further, paresthesia, anaesthesia, conditions of depression, irritation of the sexual organs, etc.—all these symptoms are aggravated in the dorsal, and diminished in the abdominal posture.

Anæmia of the spinal cord, as experimentally produced by ligation of the abdominal aorta, and as observed clinically, in consequence of embolic occlusions, is better known in its manifestations.

Leyden distinguishes three forms of spinal irritation, namely: 1—the hysterical; 2—the hypochondriac, and 3—the anæmic, to which are attached certain sub-varieties. The author observes that the difference between hysteria and spinal irritation is, in general, difficult to distinguish, and the beginning stages of disseminated sclerosis are also difficult to differentiate from hysteria. But in hysteria there is more disturbance of sensation, while in sclerosis there is more of motion. Among these motor disturbances the so-called *intention trembling* is especially to be remarked. It disappears during rest, which fact distinguishes it from paralysis agitans.

This tremor in intended movements lessens as the disease advances, and finally gives place to peculiar spasmodic contractions, especially of the extensor muscles, by which marked abnormalities of the joints are occasioned.

In hypochondriacal paralysis the subjective troubles are much more marked than those which are demonstrable as objective. Moreover, the paralyzes are only slight; they change about and rapidly disappear. Aggravations are occasionally induced by dyspeptic disturbances. The basis of these difficulties is a venous hyperæmia of the lower part of the cord.

Patients suffering from the anæmic forms of spinal irritation are for the most part pessimists. True, paralyzes are for the most part absent. There is only functional weakness, often caused by previous losses of semen to great extent. Pains occur in changing places; the bladder and rectum remain unaffected.

The general condition in real diseases of the cord remains often enough perfectly good for years, while the opposite is the case in spinal irritation.
—*Deutsche Zeitschrift f. prakt. Medizin*, Nov. 23, 1878 (*Lancet and Clinic*).

LOCOMOTOR ATAXIA.—Dr. A. Takacs publishes in the *Centralbl.* (50, 1878) the following clinical and anatomical results of his investigations on locomotor ataxia, promising a speedy publication of the details and methods.

1. The grey degeneration of the posterior columns, existing almost always in tabes, is a secondary process. The primary affection is an atrophy of the posterior roots, or the posterior cornua, or a posterior meningitis.

2. The constant anomaly of sensibility in tabes is a diminished velocity of conduction. Anæsthesia, however, or hyperæsthesia, do not occur in all cases.

3. The posterior columns contain centripetal fibres, nerves of touch. The grey substance conducts in the normal state only painful impressions (Schiff), but in morbid changes of the posterior columns it can assume the function of the posterior columns (Friedreich). This accounts for the diminished conductivity.

4. In a normal movement the muscles do not contract suddenly, but in variable phases, according to the intended movement. For this purpose the muscles require a graded stimulation, originating in the sensitive nerves, which perceive the muscle contraction.

5. But if this stimulation, starting in the sensory nerves, is retarded, the muscular contraction becomes also retarded, and hence jerking—*ataxic*.

6. In tabes the retardation of sensitive conduction is due to the fact, that the slowly conducting grey substance is fulfilling the function of the degenerated posterior columns.

7. When the posterior columns alone are degenerated, only ataxia occurs; but if the degeneration involves also the posterior roots and cornua, there will be found anæsthesia, or hyperæsthesia, according to the stage of the disease.

CONTRACTURES IN INTRA-VENTRICULAR EFFUSIONS.—At the session of the Société de Biologie, March 1 (rep. in *Le Progrès Médical*), M. Cossy related