

Periscope

Deutscher Zeitschrift für Nervenheilkunde

(Band 34. Heft 2)

1. Pathological and Clinical Report of a Tumor of the Medulla. WISIVE.
2. Studies in Reflexes. Behavior of the Cutaneous and Tendon Reflexes in Infancy. Z. BYCHOWSKI.
3. The Strength of Hemiplegics. M. STERNBERG.
4. Meralgia Paræsthetica Anterior. W. LASAREW.
5. Segmentary Abdominal Paralysis. P. SALEEKER.

1. *Tumor of the Medulla.*—The writer reports a case diagnosed during life as tumor of cerebellum or cerebellar-pontile angle. The possibility of acquired hydrocephalus could not be excluded, owing to the peculiar cranial conformation and the duration of the symptoms. At necropsy a gliosarcoma of the medulla was found, causing marked enlargement of this structure.

2. *Studies in Reflexes.*—Since ontogeny, the evolution of the individual, is a portrayal of phylogeny, or the evolution of the race, a study of the reflexes should show in its ontological development a repetition of its phylogeny. In all theoretical hypotheses on the origin of reflexes, one must comprehend the fact, that all motor effects, now separated from the complete control of the will, phylogenetically arise from different offensive and defensive movements. If the reflexes, A, B and C did not develop simultaneously, and did not become automatic at the same time and, perhaps, have been separated through whole epochs, then must their ontogeny be chronologically different. To prove this Bychowski studied the relations of certain reflexes in infancy. In 100 children the tendo-patellar and tendo-Achilles, the upper and the lower abdominal and cremasteric reflexes were studied. The plantar was excluded owing to the complexity of the movements.

In this study certain precautions were taken to avoid error. Almost all were healthy children. They were studied by daylight, and in the waking state. Crying children were not examined on account of the difficulty in obtaining the abdominal reflex. Several examinations were made when the reflex was not obtainable. In the table presented, 67 cases of children under one year are given. The constant occurrence of the patellar reflex (only two cases showed failure and these children were sick) was noted, and the reaction was more active than in the adult. The Achilles tendon reflex was absent in 60 out of 64 cases under six months. After the fifth or sixth month it was more frequently observed. The abdominal reflexes also do not belong to the early months, but after the fourth or fifth month are more frequent. The same is true for the cremasteric reflex.

Bychowski concludes from this study that the patellar tendon reflex has a greater phylogenetic dignity than either the Achilles or the skin reflexes.

3. *Strength of the Hemiplegics.*—The writer studied the power in 27 hemiplegics, as shown by the dynamometer. The instrument used was especially constructed by him. The object of the experiments was to verify the findings of Pitres, as well as to study the effect of bilateral effort, simultaneously recorded in each side. Pitres in 1882 found on the healthy side a diminution of power, while bilateral effort caused an increase of power on the paralyzed side. Sternberg also found a diminution of power on the sound side, but on bilateral effort the results obtained on the paralyzed side were inconstant; sometimes increased, sometimes lessened, absent or changeable. Bilateral effort showed an inconstant result on the healthy side. This result does not substantiate Broadbent's theory, that bilateral effort should cause a diminution of strength on the sound side; and his theory of restitution in the paralyzed side through secondary assistance from the healthy hemisphere is not supported, according to Sternberg.

The writer offers the following theory to explain the results of simultaneous effort: The motor apparatus is bilaterally arranged, so that with movement of one half of the body exciting impulses and inhibitions are formed for corresponding movements of the other half of the body. By symmetrical and simultaneous innervation of both fists the inhibitory and stimulating impulses hold themselves in equilibrium in the healthy individual, while in hemiplegics this equilibrium is destroyed and a negative or positive simultaneous effect will depend as to whether the sum of the inhibitory impulses or exciting impulses prevail.

4. *Meralgia Paræsthetica Anterior.*—While many cases of the Roth-Bernhardt symptom complex or external paræsthetic meralgia are recorded, only three of the anterior paræsthetic meralgia have been reported. Lasarew reports a fourth. The patient, a woman 20 years of age complained of pains only on standing or walking, confined to the region of the middle cutaneous nerve. Paræsthesia and hypæsthesia were also noted. This case differed from the others, in that only the middle cutaneous nerve was involved.

5. *Segmentary Abdominal Paralysis.*—According to Oppenheim's experiment, the innervation of the abdominal muscles is multiradicular. Saleekee contradicts this statement, and reports two clinical cases, one with necropsy, to show the segmental innervation of these muscles. In the first case the patient, age 40, previously healthy, suddenly developed one-sided shooting pains in hip and leg, which later extended to the other side. Finally a gradual loss of power (extending over several months) occurred in both legs. The diagnosis, when syphilis had been excluded by the therapeutic test, was that of a spinal tumor from tenth or eleventh thoracic to the third sacral segment. This localization was based upon the following findings: Sensation was lost below the eleventh thoracic segment, the lower abdominal reflex was absent, and the lower one third of the oblique showed atrophy and reactions of degeneration. The upper and middle abdominal reflexes were intact, and the rectus and upper one third of the oblique reacted well to the faradic. The bladder and rectum were intact, as was also the anal reflex.

Operation revealed an intramedullary glioma which had almost destroyed the lumbar region. The anatomical findings showed total atrophy of the anterior horn cells in tenth, eleventh and twelfth thoracic segments. The author places the center of the lower one third of the oblique and also the lower abdominal reflex in these segments. The rectus is higher up.

In his second case, one of traumatism to the cord, he found the abdominal muscles affected as follows: Lower one third of the left rectus, both lower portions of the left oblique and the lowest one fourth of the right oblique showed partial paralysis. Both lower abdominal reflexes were lost, as well as the middle abdominal reflex on the left side. The diagnosis was a lesion from the tenth thoracic to the third lumbar.

In conclusion the writer says: (1) Not only total but partial paralysis of the abdominal muscles occurs in disease of the spinal cord. (2) The innervation is not multiradicular, but segmental. (3) The nuclei of the recti do not extend so far backward as those of the oblique muscle. (4) The individual abdominal reflexes correspond to definite segments of the spinal cord. (5) Observation of segmentary abdominal paralysis is in conjunction with the sensory and reflex disturbance of importance for localization in the thoracic region.

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Review of Neurology and Psychiatry

(Vol. VI. No. 1. 1908)

1. Pseudo-Myasthenia of Toxic Origin (Petrol Fumes). Sir WILLIAM R. GOWERS.
2. A Note on the Condition of the Post-central Cortex in Tabes Dorsalis. GORDON HOLMES.
3. Clinical and Anatomical Diagnosis of the Ankylosing Diseases of the Spinal Column. ANDRÉ LERI.

1. *Pseudo-Myasthenia of Toxic Origin*.—Gowers reports the case of a man, age 38, whose occupation was testing petrol engines in a government factory. He was constantly exposed to the fumes of burned petrol, sometimes imperfectly burned. The symptoms were, more especially, a quickness of exhaustion of the muscles of speech, a feebleness of deglutition, weakness of the orbicularis palpebrarum, and a peculiar smile. Electrical reactions, reflexes and sensation were all normal. The patient recovered under strychnia, but returned to his work, and at the end of a period of less than a year was again treated by Sir William for the same symptoms and again recovered, and on relinquishing his occupation he has not again relapsed. The nature of the products of the imperfect combustion of petrol and their deleterious character are unknown.

2. *Condition of Post-central Cortex in Tabes Dorsalis*.—Holmes takes issue with A. W. Campbell respecting the post-central cortex in tabes; and maintains that we have as yet no proof that the center for "common sensation" is co-extensive with the distribution of any type of cortex, or with any structural area. Holmes examined the brains of four tabetics. Campbell found a difference between the structure of the anterior wall and of the summit of the post-central gyrus, due he thought to pathological changes of the former, in three cases of tabes. Holmes failed to find any evidence of pathological change in either area in his tabetic brains.

(No. 2. 1908)

1. Clinical and Anatomical Diagnosis of the Ankylosing Diseases of the Spinal Column. ANDRÉ LERI (concluded).
2. The Epiconus Symptom-Complex in Cerebro-Spinal Syphilis. W. G. SPILLER.