

without any accompanying lachrymation, so that the relation between the cause and effect is not apparent. Such cases ought to be examined thoroughly. He thinks that neuralgias and ties of the face should be considered as pathologic reflexes, and that the origin of these reflexes should be sought for, especially in the region of the lachrymal ducts, before having recourse to surgery which only interrupts the reflex circuit. BONAR.

37. OPHTHALMOPLÉGIA INTERNA BEI MIGRAINE OPHTHALMOPLÉGIQUE (Internal Ophthalmoplegia in Ophthalmoplegic Migraine). E. Troemmer (Centralblatt für Nervenheilkunde und Psychiatrie, Oct., 1899, p. 577).

A woman of thirty-eight years of age had headaches since her twenty-first year, with the exception of a period of five years. The mother and sister of the patient also had headache. The patient's pain was sometimes on the right side of the head and sometimes on the left; it began almost every day in the morning, and was often associated with redness and swelling of the cheek and ceased after or during a long sleep. The headache, which had almost disappeared during a period of five years, returned after a fright caused by the sudden death of the patient's husband. On the second or third day after the pain again began the woman noticed that the vision of the right eye was impaired and that the right pupil was very large. Examination showed that the right pupil did not react to light or in convergence and reacted very imperfectly in accommodation. After three or four months considerable improvement in the ophthalmoplegia occurred. No other case of internal ophthalmoplegia associated with migraine seems to have been reported.

SPILLER.

38. UEBER PERONEUSLÄHMUNG BEI TABES (Concerning Paralysis of the Peroneal Nerve in Tabes). Finkelnburg (Monatsschrift für Psychiatrie und Neurologie, Vol. 6, No. 4, Oct. 1899, p. 286).

Peroneal paralysis has occasionally been seen in cases of tabes dorsalis. Finkelnburg reports two cases in which the paralysis in the distribution of the peroneal nerve resulted from pressure, therein differing from the other cases of tabetic peroneal paralysis in the literature. In the first case the pressure was caused by the position of the legs maintained for a long time, but alcoholism and tabes rendered the peroneal nerve more liable to injury from slight pressure. In the second case an arthropathy of the knee caused pressure on the peroneal nerve.

SPILLER.

PATHOLOGY.

39. UEBER DAS GONOCOCCENTOXIN UND SEINE WIRKUNG AUF DAS NERVENSYSTEM (On the Gonococcus Toxine and Its Action on the Nervous System). Maltschauoff (Münchener medicinische Wochenschrift, 46, 1899, No. 31, p. 1013).

The author describes the changes found in the nervous system after the action of gonococcus toxine; in white mice, guinea pigs and rabbits.

As a culture medium for the gonococcus he used peptone agar, with hydrocele fluid, while for toxine production, the organism was allowed to grow in a mixture of equal parts of bouillon and hydrocele fluid. Cultures, 20 to 25 days old, in which the cocci had been killed by heating at 70° C. for 15 minutes, but which were used unfiltered, were found by the author to be most toxic.

White mice which had received injection of 0.5 to 2.0 grm. invariably died in from 12 to 28 hours, with symptoms of acute ascending paralysis. The nerve cells, especially those of the anterior horns of the spinal cord, showed acute degeneration, with chromatolysis, alteration in position of the nucleus, vacuolization, etc. In the brain hyperemia and small hemorrhages were found, but the peripheral nerves and muscles were unaltered. Guinea pigs proved quite susceptible, and after the injection into the peritoneal cavity of 10.0-15.0 grm., died in from 1 to 5 days, showing progressive emaciation and weakness. Rabbits died in convulsions 4 to 6 hours after the intravenous injection of 10.0 grm. or more of the toxine.

In both rabbits and guinea pigs it was found that a condition of chronic intoxication could be produced by repeated injections of less than the lethal dose. In both animals paresis or paralysis of the hind legs usually came on in from 1 month to 6 weeks. His conclusions are:

In acute intoxication the changes consisted in alteration (chromatolysis, excentric position of the nucleus and vacuolization) of the nerve cells, especially of those of the anterior horns, to a less extent of those of the intervertebral ganglia, least of those of the nuclei of the medulla and of the cortex.

In chronic intoxication, degenerative neuritis was most common, and sometimes degeneration of the posterior roots and of the posterior columns of the cord was observed.

ALLEN.

40. STUDIEN ZUR PATHOLOGIE UND PATHOLOGISCHEN ANATOMIE DER RÜCKENMARKSCOMPRESSION BEI WIRBELCARIES (Studies on the Pathology and Pathological Anatomy of Compression of the Spinal Cord in Vertebral Caries). Alfred Fickler (Deutsche Zeitschrift für Nervenheilkunde, 16, 1899, p. 1).

Fickler has had a very rich material at his disposal for a study of vertebral caries—20 cases in all, 19 of which were with necropsy. Some of his more important statements are: Tuberculosis of the spine is almost always secondary, and usually the lungs are the primary seat of infection, although the lymph glands are occasionally first affected, and more rarely other organs. Trauma seems to be of some importance in the development of the disease, although a cause is not usually found. The disease seems to appear somewhat more frequently after middle life, as in more than 50 per cent. of Fickler's cases the patients were over 50 years old. The first symptom is usually dull pain at the affected vertebrae, and is increased by bending over, but in children the pain is not infrequently absent, and in adults also it may be unimportant. Rigidity of the spine is another early symptom. Pain on pressure over the spine is absent in about half of the cases. Root symptoms, usually sensory, are among the earliest symptoms of the disease, and the pain is continuous, although it may occur periodically. The first symptoms of compression of the spinal cord are disturbances of motor innervation, such as fatigue, ataxia, and paresis. Paraplegia may occur suddenly, and when it does it is due to rupture of the abscess into the vertebral canal or to the giving away of carious vertebrae. One of the earliest symptoms of compression of the spinal cord is constipation. Unfortunately, Fickler has had no experience in operation in cases of Pott's disease. The most common cause of compression of the spinal cord is the extension of the tuberculous process to the epidural tissue.

A great many histological details are given by Fickler, among which the most interesting is the description of fibers within the cord,