made. In all of these there were extensive inflammatory and degenerative changes in the cells of the motor area in addition to changes in the blood vessels and lymph spaces. Degeneration and disappearance of the tangential and radial fibers were also noted. On the evidence given by pathological anatomy there would seem to be no structural differences which give rise on one hand to localized convulsive seizures in cortical epilepsy, or on the other to those in general paresis. The difference must be in the cell activities which may be influenced by the changes in the encephalic inflammatory processes. The constant tremor is due, the author holds, to degeneration of the pyramidal tracts. The dysarthria is probably associated with a cortical ataxia of the frontal lobes. The changes in muscular sense are dependent upon degeneration of the tangential fibers. In common with the views of Nissl and of Weigert, the author states that the parenchymatous changes in the ganglion cells are of primary origin and are not dependent upon fiber degenerations, though their further degeneration is intimately connected with such other changes.

26. ANATOMIE PATHOLOGIQUE ET ÉTIOLOGIE DE LA PARALYSIE GÉNÉRALE (Pathological Anatomy and Etiology of General Paresis). Discussion. *Ann. méd.-Psychologique*, 7, 1898, pp. 440, 448, 464.

A lengthy discussion of the French medico-psychological society is here to be found on the etiology and pathology of general paresis. The main points of contention were regarding the occurrence of general paresis in the young, Régis presenting a paper on this subject, while Christian took a stand against its occurrence as also against any meta-syphilitic interpretations from the standpoint of the etiology. In the matter of the syphilitic etiological factor the prevalence of syphilis among the Arabs and their comparative immunity from general paresis was much in evidence. The discussion should be read to be thoroughly appreciated.

27. SUR DES LÉSIONS SPINALES DANS LA PARALYSIE GÉNÉRALE (On Spinal Lesions in General Paresis). G. Anglade (*Arch. de Neurologie* 6, 1898, p. 81).

The writer has described the pathological lesions in 20 cases which were clinically studied in Foncaill's Thèse de Paris, 1898. In the spinal cord there was found in all of the paralytic cases, degeneration of the exogenous fibers of the posterior and lateral columns; the direct cerebellar tract, the direct pyramidal and Gowers' tracts being involved less often. In the gray matter of the cord, there was fiber degeneration and chromatolysis of the cells in the anterior and posterior horns and in Clark's columns. Leptomeningitis, increase in the neuroglia, arterio-sclerosis and phlebitis were also found.

In the non-paralytic cases the writer finds much the same types of cell changes and he states that many of the lesions are similar to those found in syphilis, though most writers on the pathology of this disease state otherwise. He propounds a theory bearing on the pathogenesis of these changes.

28. CASUISTISCHE BEITRÄGE ZUR DIFFERENTIAL-DIAGNOSE ZWISCHEN LUES CEREBRI DIFFUSA UND DEMENTIA PARALYTICA NEBST EINEM ANATOMISCHEN BEFUND (Clinical Contribution to Differential Diagnosis of Diffuse Cerebral Syphilis and General Paresis, with an Autopsy). C. Winckel (*Arch. f. Psychiatrie*, 30, 1898).

Although this long report does not permit the drawing of definite conclusions, it is interesting on account of the wealth of detail of the

observations. The general conclusions from a clinical standpoint are as follows: In the six observed cases syphilis is certain. In three instances where the dates of infection were obtainable, mental disorders first appeared after a lapse of several months, 13, and 20 years respectively. In these cases specific treatment had been carried out beforehand, it was pursued in the institution with a more or less favorable result both as regards physical and mental symptoms in four cases, and with absolutely no result in the 6th case, which terminated in general paralysis. Heredity was to be noted in 2 cases.

The clinical picture of the psychical symptoms is most variable. After a premonitory period (5 cases) in which an alteration of character was remarked, maniacal excitement and anxiety and depression, euphoria and apathy succeeded each other or predominated. In two instances hypochondriasis existed, in another auditory hallucinations. Three cases manifested lessening of intelligence to a moderate degree, and without any progressive tendency, one patient was entirely cured, and two others in whom the picture resembled more nearly general paralysis went on to progressive dementia with delusions of grandeur.

Physical symptoms. Ocular manifestations; transitory paralysis of 3d and 6th pairs; symptom of Graefe unilateral, in two cases. In all the cases except one, absence of consecutive disappearance of the light reaction of one or both pupils; this symptom may be a relic of a former syphilis. Permanent or transitory aphasia, paresis of the limbs or face, 4 cases. Tendon reflexes were found normal once, different on the two sides, twice and exaggerated three times. Hypoalgeria in two cases. Ataxia was marked in one case, barely perceptible in another, disorders of articulation permanent or temporary, and more or less precocious in all.

Duration of the disease from $3\frac{1}{2}$ - $4\frac{1}{2}$ years, and even longer in one instance.

Several of the symptoms are also to be found in general paralysis, eye troubles, disorders of articulation, of sensibility and of the reflexes. As means of diagnostic importance are to be noticed, the variable character of the ocular affections, the aphasia, the temporary paresis, the non-progressive nature of the intellectual weakening, the co-existence of specific eruptions, and the favorable effect of specific treatment (even resulting in recovery) and the prolonged duration of the trouble.

The autopsy of the sixth case revealed a wide spread endarteritis of the arteries of the base; besides this lesion which is decidedly syphilitic, the other appearances approach those of general paralysis, cellular infiltration of meninges and vessels, variable atrophy of the fibers, adhesions of pia mater to the cortex, predominance of these lesions in the anterior lobes, absence of focal lesions.

It is the opinion of the author that it is secondary atrophy of the tangential fibers that produced the terminal symptoms resembling those of general paralysis, the circulatory changes due to the endarteritis and perivascular infiltration explaining the earlier mental and physical symptoms, such as changes in disposition, mental deterioration and apoplectiform attacks with paresis and aphasia.

29. LES PARALYSIES GÉNÉRALES PROGRESSIVES (General Paresis). Dr. Klippel (*Archives generales de Médecine*, 1898, p. 641).

The author speaks of the complications which have arisen in the study of general paresis due to the great variation in the clinical types of the disease. He proposes here a classification of the cases along three lines: (1) Primary inflammatory general paresis; (2) Secondary