curred at an early age. When the patient was examined by the author nothing extraordinary was discovered in the eye-lid and face muscles, and jerking movements of the hands led to no conditions of tension. As soon as the weather became colder, however, prompt contractions of the muscles were observed when the fist was suddenly closed. The hand could only be opened slowly and by overcoming great resistance. The patient was able to perform the clerical duty connected with the military service to which he had been assigned until the month of December. Then the peculiarity that he could not open his eyes while walking along the cold streets, and the return of the facial spasms led to his being sent back to the author for observation. The electrical examination revealed the myotonic reaction as on the former occasion. This is therefore a case in which in addition to the phenomena belonging to myotonia there was a muscle rigidity lasting hours produced by cold, but only in the parts of the body which were most exposed. The case resembled the atypical cases described by Eulenburg and Lewandowski. The question arises whether these deviations may not belong to the disease picture, or whether they are caused by some accidental circumstance. The author states that in his case the atypical phenomena seemed to be essentially connected with the disease. Evidence confirmatory of this is that the symptoms described have been repeatedly observed together; the same causes (cold and long-continued strained movement) which produced the rigidity and weakness also increased the myotonia; that both series of symptoms existed from earliest youth, and that both series were hereditary. The only circumstance going to show that they are separately existing disease processes is the fact that muscle rigidity occurs without myotonia. To this objection it may be answered that certainly all cases are not explicable in the same way, a circumstance realized by various writers, for example Lewandowski, who in the case with somewhat similar clinical phenomena observed by him found no certain proof of a relation to myotonia. It may be that some of these cases stand in closer relation to the "familial cortex spasms" described by Rülfi. In the author's case besides the symptoms which he considered to be due to the same disease process as the myotonia, there were other signs of degeneration which could not be thus accounted for and these disturbances as well as certain phenomena connected with the blood vessel innervation and the vasomotor reactions stand in need of further study to obtain a complete understanding of the case.

Hillel. UNUSUAL CASE OF DISSEMINATED SCLEROSIS. [Med. Klinik, Oct. 26, 1919.]

The case of a girl aged 18, was remarkable because for more than two months a unilateral choked disc was the only physical sign. The diagnosis of syphilis could not be admitted, in view of the negative re-

sult of the Wassermann and examination of the cerebro-spinal fluid, as well as the subsequent course of the disease in which the cranial nerves were not affected. Subsequently the diagnosis was established by the occurrence of Babinski's sign, horizontal nystagmus, and absence of the abdominal reflex. The occurrence of a unilateral choked disc is explained by morbid changes in the brain, causing a rise of cerebral pressure, but not of the intense and progressive character of that present in cerebral tumor.

Strümpell, Adolf. REMARKS CONCERNING THE ETIOLOGY OF MULTIPLE SCLEROSIS. [Neurol. Centralbl., June 16, 1918, No. 12, Vol. 37.]

The recent communications of Kuhn and Steiner as well as of E. Siemerling concerning the discovery of living spirochetes in the foci of multiple sclerosis have aroused the greatest interest among neurologists. This discovery and the proof that the disease could be communicated from man to lower animals by inoculation with the spirochete seemed at once to explain the cause of the disease. But the conclusion must not be immediately formed that the whole etiology of multiple sclerosis is made clear thereby. The presence of the causal agent does not alone condition the disease; there are many other factors to be taken into consideration, the reciprocal relation in which this causal agent stands to the tissues of the body attacked by it, how it produces its injurious effect on the organs, what are the defense reactions called forth, and what are the consequences in the various tissues and fluids. The purpose of the author's article is to discuss the question from these points of view. Concerning the manner in which multiple sclerosis enters the system nothing certain is as yet known. Though attention has recently been called to the fact that this disease sometimes follows other infectious diseases (measles, scarlet fever, influenza) this is only true of a very small number of cases and has no essential significance. Some writers have suggested occupational intoxications as cause, and others traumas, but these are obviously only accompanying circumstances which do not go to the root of the matter. As a rule multiple sclerosis seems to develop "of itself" so to speak. Some light on the manner in which the disease enters the system might be obtained from the history of the patient and that the profession has still to learn the importance of the anamnesis in this disease, recalling how long it was before physicians realized the necessity of studying the anamnesis in tabes. Further, in regard to the assumption that the disease is of infectious origin, attention is called to the fact that these features are absent which are almost always indicative of the infectious nature of a disease; for example, there is no evidence that the disease is communicated from one individual to another; the disease is never found spreading to various members of the same family; it is never found in epidemic form. The few cases reported in former times where it seemed