

macillus for typhoid fever thus receives additional important confirmation. Experiment has shown that properly conducted immunity-methods give rise to the presence of the specific bactericidal substance in the blood in marked concentration. Observations upon human beings suffering with typhoid fever must show whether or not the use of the serum of immune animals is capable of similar bactericidal effects in man.

A CASE OF HEREDITARY CHOREA.

At a recent meeting of the Johns Hopkins Hospital Medical Society OSLER (*Bulletin of the Johns Hopkins Hospital*, vol. v., No. 43, p. 119) reported the case of a man, twenty-eight years old, who at the age of eighteen first noticed slight twitching of the arms and hands, afterward involving the face, shoulders, and legs. The movements were progressive in intensity and extent, and finally interfered with manual labor. For some three months speech was affected. The man had a healthy appearance, with normal temperature and pulse, and presented no abnormality of the thoracic or abdominal viscera. Almost all of the muscles were involved in the movements. Those of the face were but slightly implicated, although the angle of the mouth was occasionally twitched and the eyebrows elevated. The muscles of the trunk were in constant, irregular action, resulting in elevation of the shoulders or slight movement of the body. The arms and hands were moved in an irregular, purposeless manner, the movements closely resembling those of chorea minor, although possibly a little slower. There was no trace of incoordination or involuntary movement. If seated quietly, the legs were shifted or flexed, or the toes turned up; the gait was a little staggering; there was some hesitancy in starting, and some swaying in walking. There was neither wasting nor spasm, nor rigidity, nor increase in the reflexes. There was complaint of undue readiness of fatigue. It was learned that the patient's mother had died at the age of forty-nine years of a disease similar to his. She had had nervous twitchings of the face as long as the patient could remember. The trouble grew gradually worse, so that she could not move from her chair, and she finally became bed-ridden.

One brother died at the age of thirty-two, of influenza, after he had been afflicted for eight years with the same sort of disease as the mother. Another brother and four sisters presented no motor peculiarity, and it could not be learned that any other members of the mother's family were affected.

NUMERICAL CHANGES IN THE COLORLESS BLOOD-CORPUSCLES IN CROUPOUS PNEUMONIA.

From a study of the blood in twenty-two cases of croupous pneumonia BILLINGS (*Bulletin of the Johns Hopkins Hospital*, vol. v., No. 43, p. 105) arrives at the conclusion that in cases pursuing a favorable course there is a real and marked increase in the number of colorless corpuscles during the febrile period of the disease. This leukocytosis is probably present at the time of the chill, and may be very marked within a few hours. There is no correspondence during the febrile period between the daily temperature and the curve representing the number of the colorless blood-corpuscles. In

cases in which the temperature falls by crisis the curve corresponding to the number of colorless blood-corpuscles begins to fall within a few hours of the same time. The fall of the latter is only partial, however, and rarely reaches normal as soon as the temperature-curve, generally taking about forty-eight hours longer. In cases ending by lysis the two curves fall together, the temperature always reaching normal first. In cases of delayed resolution the number of leukocytes may remain elevated for days. In a majority of cases the corpuscular curve rises during the period of fall of temperature, and may reach its maximum at that time. Such a rise is only transient, however, and is soon followed by a fresh fall. In cases with extensive involvement of both lungs, the number of colorless blood-corpuscles is likely to reach a higher point than in those cases in which the involvement is only moderate. The correspondence of lung-involvement and degree of leukocytosis is, however, a very rough one. In fatal cases leukocytosis may be present or absent. In those attended with leukocytosis some other cause of death than the virulence of the bacterial poison must be sought for. In cases presenting a complete and continuous absence of leukocytosis the prognosis is, as a rule, unfavorable. Continuous absence of leukocytosis is the exception, most cases showing this condition at some period of the disease. The possibility of an absence of leukocytosis being due to extreme mildness of the disease must not be overlooked. The leukocytosis of pneumonia is a so-called pure leukocytosis, i. e., dependent upon an increase in the polynuclear elements solely. In cases showing no leukocytosis the blood-conditions were found normal. Further investigations are necessary, however, before the work of previous observers can be positively contradicted. The presence or absence of leukocytosis only shows the virulence of the bacterial poison, but is not to be considered a criterion of absolute prognosis.

THE PATHOLOGY OF TABES DORSALIS.

From a careful study of one old case of pure tabes, two recent cases of tabes associated with general paralysis, and one pure case of general paralysis NAGEOTTE (*La Semaine Médicale*, 1894, No. 64, p. 522) concludes that the primary lesion of tabes consists in an intense peri-neuritis, involving the posterior root between the ganglion and the entrance of the root into the arachnoid cavity. At first proliferative, this peri-neuritis at a later stage becomes fibrous, and is followed by degeneration of the fibres of the posterior roots. The anterior roots are involved equally with the posterior, but the former more effectively resist the interstitial changes than the latter. Nevertheless, indications of this lesion are found in the peripheral neuritis of motor type observed in some cases. The morbid changes in the nerve-roots are identical with those observed in the brain in general paralysis. There is no historic evidence to prevent acceptance of the belief that in both instances the lesions are of syphilitic origin.

VARIOLA COMPLICATED BY ACUTE MYELITIS.

AUCHE and HOBBS (*Compt. Rend. Hebd. des Sciences de la Soc. de Biol.*, 1894, No. 28, p. 703) have reported the case of a woman, twenty-eight years old, who, in the stage of desiccation of an attack of discrete variola, was seized with