characterized by its relative rapidity of course. The lesion of the peripheral nerves presents almost all stages of medullary degeneration, simply atrophic nerve fibres and empty sheaths of Schwann being relatively uncommon, while interstitial changes are usually most common. In harmony with the acuteness of development there are found hemorrhages, distention of the bloodvessels, accumulations of leucocytes in the vessels and in the tissues, and cellular proliferation generally. Toxic neuritis is characterized by the involvement of circumscribed nerve areas, varying with the toxic agent. Latency, of course, does not seem to occur. The anatomic lesions frequently consist in a simple atrophy of the nerve fibres. Accumulations of round cells are quite uncommon, and recent hemorrhages into the interstitial tissue are almost entirely wanting. It would appear as if toxic neuritis were further characterized by segmental and periaxial involvement in the inflammation of at first individual nerve fibres, subsequently leading to a homogeneous emulsification of the corresponding medullary division. The dyscrasic form of peripheral neuritis frequently pursues an entirely latent course. Its eminent characteristic is chronicity. Simple parenchymatous atrophy is the predominant anatomic lesion. Frequently all that is found is a condition of simple atrophy, with empty sheaths of Schwann. When interstitial changes are present they usually consist in simple proliferation of the connective tissue, which not uncommonly contains vessels with thickened and obliterating walls.

SPECIFIC TREATMENT OF ENTERIC FEVER.

EUGENE FRAENKEL (*Deutsche med. Wochenschrift*, 1893, No. 41, p. 985) records a number of exceedingly interesting and valuable observations upon the employment of attenuated cultures of the typhoid bacillus of Eberth in the treatment of 57 cases of enteric fever; and RUMPF (*Ibid.*, p. 987) reports a series of 30 cases treated with attenuated cultures of the bacillus pyocyaneus. Both sets of observations were carried out at the New General Hospital at Hamburg, and the results obtained in each series of cases were strikingly parallel. Thymus bouillon was inoculated with ordinarily virulent cultures of the respective organisms and placed for three days in the thermostat at a temperature of from 96.8° to 98.6°. The bouillon was then sterilized by being placed for about twenty minutes in a water-bath at a temperature of 145.4°. Of this fluid 0.5 c.cm. were injected into the gluteal region as the initial dose as soon as the diagnosis was made, only the graver cases, however, being subjected to the treatment. The first injection was, as a rule, followed by no appreciable change in the condition of the patient. On the following day the dose was doubled—i. e., 1 c.cm. of the fluid was injected into the opposite gluteal region. Soon afterwards, in most cases, some elevation of temperature was noticeable, at times accompanied with chilliness or a chill. On the third day a distinct decline of temperature was observed, and on the following a still further decline; the temperature now not uncommonly being lower than it was at the outset. If further treatment was abstained from, the temperature began again to rise, and this thus became the indication for the next injection of an increased dose. Two centimetres of the bouillon were now injected, the temperature behaving

much as it did before, with, however, a net reduction on the whole. The result was that a fever of continuous type was converted into one of remittent type, and in a short time there was complete pyrexia. The rapidity with which this result was attained varied somewhat with the individual case. Much depended upon the stage of the disease in which the patient came under observation; the earlier the better. This rule is, however, not free from exceptions: a beneficial influence was sometimes observed in cases in which the treatment was not instituted before the last stage of the disease. Together with the remissions in the pyrexia a corresponding improvement in the general condition was to be observed, the decline of temperature being attended with a copious, agreeable sweat, while at the same time there was an increased elimination of urine. The diarrhoea also appeared to be favorably influenced, and, on the whole, the patients, as a rule, presented the picture of convalescence at a time when the roseola was yet present and the enlarged spleen was still palpable. Meanwhile the patient could be better nourished, so that when the time came for him to leave his bed, some fourteen or sixteen days after the occurrence of deferescence, he was in far better condition than is the case under ordinary circumstances. Complications, even of a fatal character, were not to be absolutely averted, though the treatment was not without avail in this direction. Neither was the treatment capable of invariably preventing relapses. These, however, responded to the treatment in the same way as the primary attacks. While the hope is not encouraged that this method of treatment will prove successful in every case, it is claimed that it is more capable of favorably modifying the course of the individual attack and of shortening its duration than any other method of treatment yet employed. The injections themselves gave rise to no complications. Frænkel fails to give in figures the results of his treatment, but among the 30 cases treated by Rumpf there were but two deaths—one from intestinal hemorrhage, the other from pneumonia. In the cases treated with dead pyocynneus bacilli, both the elevation that followed immediately upon the injection and the subsequent decline were slightly less than in the cases treated with dead typhoid bacilli.

A CASE OF GLIOMATOSIS ATTENDED WITH AN ARTHROPATHY.

SÖNNENBURG (*Berliner klin. med. Wochenschrift*, 1893, No. 48, p. 1161) has reported the case of a somewhat demented man, fifty years old, who came under observation on account of some slight affection of the leg, and was found to present changes of a trophic nature at the left shoulder-joint, in conjunction with the symptoms of gliomatosis of the spinal cord. No history of traumatism could be elicited, but the man was left-handed and had been an organ-grinder, and it was thought that this association might possibly have been the exciting cause of the articular condition. On account of the mental condition of the patient the particulars of the previous history could not be reliably ascertained. On investigation it was found that the temperature sense and the pain sense were impaired in the left upper extremity and the adjacent portion of the neck and thorax, while the pressure sense and common sensibility seemed not to have suffered. The tendon reflexes and the cutaneous reflexes were not altered. The patient complained only