

normal, and then suddenly (on the forty-eighth day) again rose to 101°. The splint was forthwith removed, revealing a tender, fluctuating tumor all about the wrist joint, and manifesting no evidence of improvement in the local condition.

With a view to ascertaining the nature of the fluid within, a hypodermic syringe was employed with the usual aseptic precautions and half a drachm of this pus removed. From this a series of cultures on broth, gelatine and agar was made, and the presence in each case of but one form of bacteria demonstrated, viz., that corresponding in size and form to the bacillus of enteric fever. Further investigations showed its extreme mobility, that it produced no acid reaction on litmus agar, and that when grown in a broth medium containing calcium carbonate, no gases were formed. There was further no sign of fermentation in a growth of the bacteria in 2 per cent. lactosed broth. We were thus enabled to exclude the presence of bacillus coli communis as a complicating factor.

Subsequent to this small aspiration gradual improvement ensued, though two weeks later there was still a small quantity of fluid left. Accordingly, for a second time, the hypodermic was introduced and a small amount of bloody pus withdrawn. A rabbit inoculated with this fluid manifested no ill effects. This, we believed, could be readily explained from the fact that as on a culture medium, so here the bacilli had grown old and hence innocuous to our animal.

One week later patient left the hospital, his wrist being almost completely restored to its normal condition.

We have recorded this case not only because of its interest in verifying the pyogenic properties of Eberth's bacillus, but also because in the fairly extensive literature at our command we were unable to discover any similar case in which a suppurative arthritis complicating typhoid fever was induced solely by the bacillus of that disease.

During the course of our investigations, however, Swiezynski, in the November number of *Centralblatt für Bakteriologie*, has recorded a somewhat similar instance, though merely of a periarticular inflammation, and the observer further notes the uniqueness of his case and his inability to find a parallel in the literature at his disposal. That ordinary pyogenic organisms are responsible for most of the suppurations in enteric fever has been amply demonstrated by Vincent, who further pointed out that wherever streptococci were associated with the typhoid germ the prognosis is always grave. On the other hand, the association of staphylococci could not be regarded as an unfavorable sign so far as recovery is concerned.

The correctness of these views is perhaps

strengthened by the experience met with at the Royal Victoria Hospital, where a patient in whom streptococcus infection was superadded to his enteric fever succumbed to the disease. On the other hand, the numerous cases in which we have found staphylococci in various complications of typhoid fever have all terminated in recovery.

As regards the treatment of suppurations occurring secondary to enteric fever, it has been urged by Dr. Meisenbach, of St. Louis, that in cases where Eberth's bacillus is the sole cause of the abscess formation, exactly the same surgical treatment is required as in cases where pus arises from infection with ordinary pyogenic bacteria. However, if it be true that a fresh growth of typhoid bacilli when inoculated into rabbits is fatal, and that the same growth a few hours old loses entirely this virulence, could not the same apply to the abscess formations in the human body? In other words, where Eberth's bacillus alone is the sole factor in producing suppuration, its virulence is so rapidly lost that the mere removal of the mechanical and chemical irritation, e.g., by ordinary aspiration, might suffice for treatment without other operative interference. In our own case, although pus was present in considerable quantity, there was never any tendency to pointing of the abscess, and its whole character after the first few days took on the appearance of a chronic affection in which all signs of active progress had disappeared.

Dr. GEORGE A. BROWN had had under his care the same case of arthritis reported by Dr. Martin. After leaving the hospital his arthritis had become aggravated, and for a long time it was very severe. He had introduced a hypodermic needle, but could obtain no matter from the joint, and after trying a great many things he finally put it up in a plaster of Paris dressing, and kept it there for a month. On removing it there was still a great deal of inflammation in the joint, so he replaced the plaster. At that time it was still in plaster, but the man was able to attend to his work. He applied the plaster from a little below the wrist joint to the elbow.

*Rhythmic Traction of the Tongue.*—Dr. MILLS gave an account of an experiment he had made on a very young kitten, which, he thought, threw some light on the real nature of rhythmic traction of the tongue as a means of resuscitation in animals threatened by death from asphyxia.

A kitten, on whose brain he had been operating, succumbed to ether. At once rhythmic traction of the tongue was begun, and after 20 to 30 seconds a single respiration was taken; after a longer period no respiration followed this procedure till the skin over chest was pinched, when another gasp followed. The method was still further tried to no purpose, till