

the hæmorrhagic areas were more numerous. The bladder contained some frothy urine. There were seen numerous submucous hæmorrhages. The walls were thin.

Coverslip preparations made from the blood in the inferior vena cava showed the presence of enormous numbers of a large encapsulated bacillus undistinguishable from the *Bac. aerogenes capsulatus*, which seemed to be in pure culture.

Cultures were made at the time of the autopsy from the various organs. From the blood deep lactose agar cultures showed gas formations at the end of 36 hours and the presence of the *B. aerogenes capsulatus*. Smear cultures on agar of heart, spleen, kidney and liver gave the staphylococcus pyogenes aureus, while cultures from the spleen gave a bacillus smaller than the colon bacillus, whose length was generally about four times its breadth but presenting considerable variability, sometimes appearing as a small diplo-bacillus. Sections of the various organs showed abundant collections of the *B. aerogenes capsulatus*. In the kidney and liver rarer minute bacilli, corresponding to that isolated from the spleen, were to be recognised. A pure culture of this small bacillus injected into the rabbit (1 cm. intravenously) led to death in 14 days. For several days previously the animal was noticed to be becoming more and more emaciated; then paresis set in, beginning in the hind limbs and becoming general. Already by the fifth day the hind limbs could not be used. During the last twenty-four hours the animal showed fairly frequent convulsions. Pure cultures from the peritoneal cavity of the rabbit into a white mouse (0.25 cm.) led to death of the animal in forty-eight hours. However, neither in the rabbit nor in the mouse were there any ecchymoses or signs of a purpuric condition.

*Conclusions*:—1. From the history and the course of the case it is hardly possible that the bacillus *aerogenes capsulatus* was the primary infection.

2. It is quite possible that the staphylococcus pyogenes aureus was primary. There is no conclusive evidence of such however, since examination of the tissues showed no large collection of the cocci in any of the organs, nor again were there any typical abscesses anywhere.

On the other hand we know that this form is a frequent inhabitant of the intestines and this, like the bacillus *aerogenes capsulatus* may invade the tissues from the erosions in the intestinal mucosa.

3. Concerning the third form again nothing definite can be said, for while somewhat similar forms have been described occurring with purpura, inoculations of pure cultures into lower animals in this case,