

section of the abdominal lymphatic system and the portal area.

From all the animals which I killed, I was more fortunate than my predecessors in gaining a characteristic micro-organism. This may have been due to the fact that I employed a somewhat different method of gaining my cultures. Instead of taking the media and inoculating on the spot, all I employed was a series of sterilized glass pipettes in which I collected relatively large amounts of the juices of the various organs; ascitic fluid, blood, etc., and then when back in my temporary laboratory, either upon that or the following day, I inoculated my media. By this means, constantly from the lymph juice of the abdominal glands and from the liver juice or bile and more rarely from other organs and fluids, I obtained in each case growths of a characteristic micro-organism; small, polymorphous, at times appearing as a diplococcus and at others as a diplobacillus which by its polymorphous character gave me a considerable amount of trouble, until I found that employing the same broth tube, at the end of twenty-four hours I obtained the one form, at the end of forty-eight, the other. Further study showed me that this micro-organism was in reality a short bacillus with polar staining, in this resembling to some extent the micro-organisms of hæmorrhagic septicæmia in the lower animals, but unlike them, possessing a slight capsule. I was able to grow this upon all the ordinary media of the laboratory. Into the character of this micro-organism I will not here further enter, beyond stating that I found it pathogenic for rabbits, guinea-pigs and mice, rabbits dying in from fifteen to thirty-five days, guinea-pigs in from thirty to thirty-five on the average.

The characteristic features of this disease—the ascites without jaundice, the gastric and intestinal disturbance and the condition of the liver—led me to seriously consider the points

of similarity between the course and symptoms of these cases and those present in portal cirrhosis in man, and though it may seem a small matter, I was especially struck by the fact that the first post-mortem which I performed upon a case of atrophic cirrhosis upon my return from Nova Scotia in 1895, presented the same gelatinous oedema of the mesenterics and intestinal walls which was so prominent a feature in the Pictou cattle disease.

Thus on and off for the last three years my attention has been directed toward this possibility of discovering bacteria in ordinary progressive portal cirrhosis. Upon three occasions I have thought that I have gained specific micro-organisms. In two, unfortunately, the growth became contaminated with the colon bacillus, and as this occurred on the eve of my vacation I was unable to continue the search further. In the third, which occurred a little over a month ago, the growth was very slight, and although pure, it had apparently died out on the fifth day and I was unable to gain any further cultures, if indeed what I saw was anything beyond the frequent presence of diplococci already existing in this liver juice at the time of extraction.

The difficulty that has pursued me in this search has been that which has prevented me from publishing so far any extensive report of my studies upon the Pictou cattle disease, namely, the extraordinary difficulty in staining the micro-organism in the tissues. I have tried a very great number of methods, and while with many I have been able to recognize the bacteria, the results obtained have been so inconstant that I have felt that others following me might very possibly have negative results: thus I have been unwilling to make any full statement until I should be able to state clearly how to be able to recognize the micro-organism. While this micro-organism stains deeply it