

## CANINE PIROPLASMOSIS. IV.

## ON CERTAIN CHANGES IN THE BLOOD.

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*(From the Pathological Laboratory, Cambridge.)*

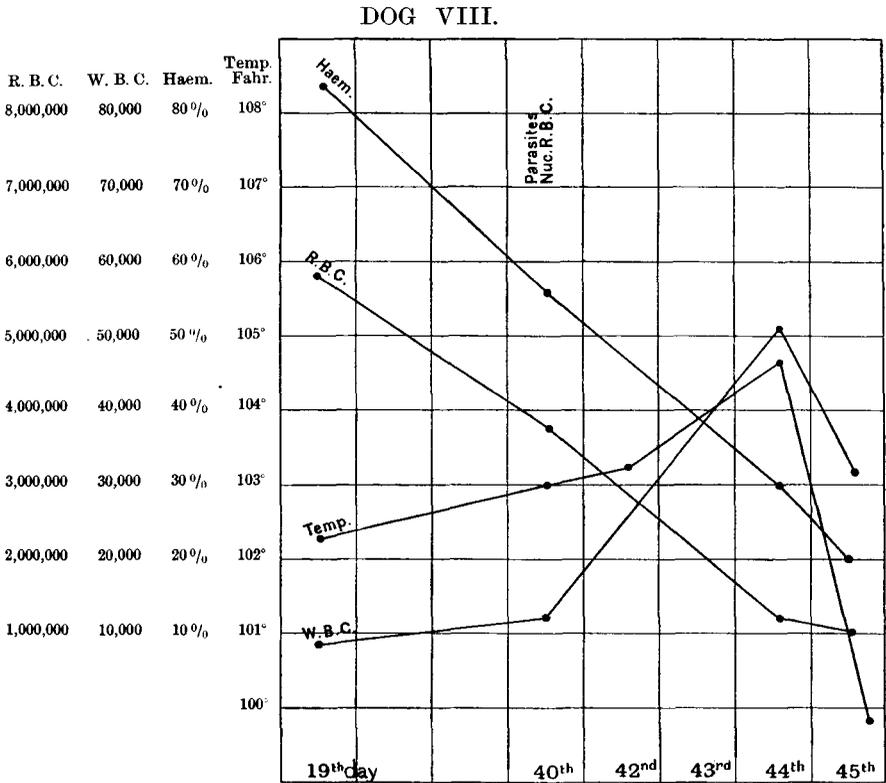
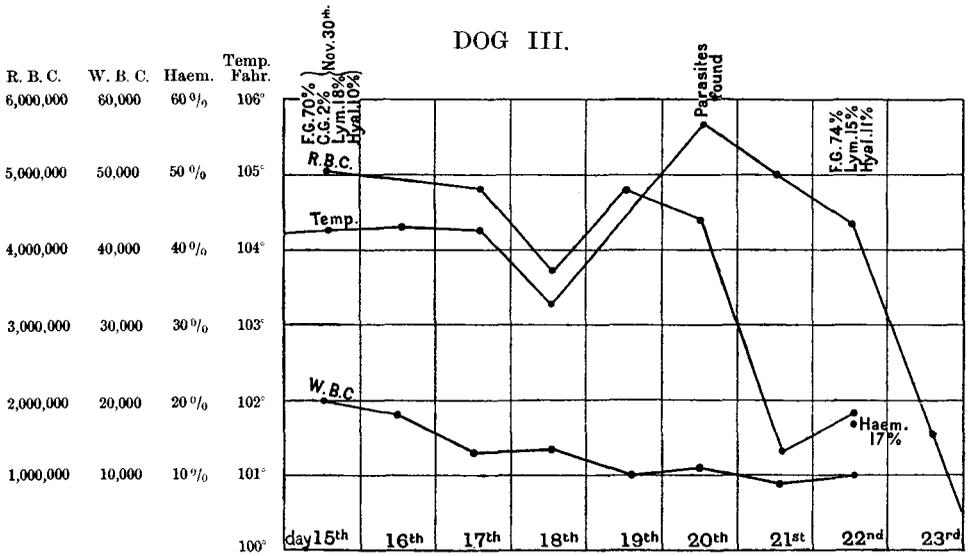
HAVING examined the blood in a number of the dogs suffering from Piroplasmosis, referred to in the previous papers, I have selected three charts to show the changes I found to take place in the blood during the progress of the disease. For the enumeration of the corpuscles the Thoma-Zeiss haemacytometer was used, and for estimating the haemoglobin, Haldane's modification of Gower's haemoglobinometer.

Taking first the number of the red corpuscles, a great reduction was a constant feature. In one dog the number fell from 5,800,000 per c.mm. to 1,000,000, and in another from 5,000,000 to 950,000, on the day previous to the animal's death. The red corpuscles were also altered in character, some were smaller than normal, while others were considerably larger, and these latter stained faintly. When the parasites appeared in the blood nucleated red cells were also to be found but usually few in number. In one instance (Dog XI, July 8th) enormous numbers were present, almost equalling in number the polynuclear leucocytes. A comparative count gave 48% nucleated red cells to 52% polynuclear leucocytes. As many as eight nucleated red cells could be seen in a single field of a  $\frac{1}{12}$  inch objective. In this case the red corpuscles were altered in size and shape and many of them were broken up.

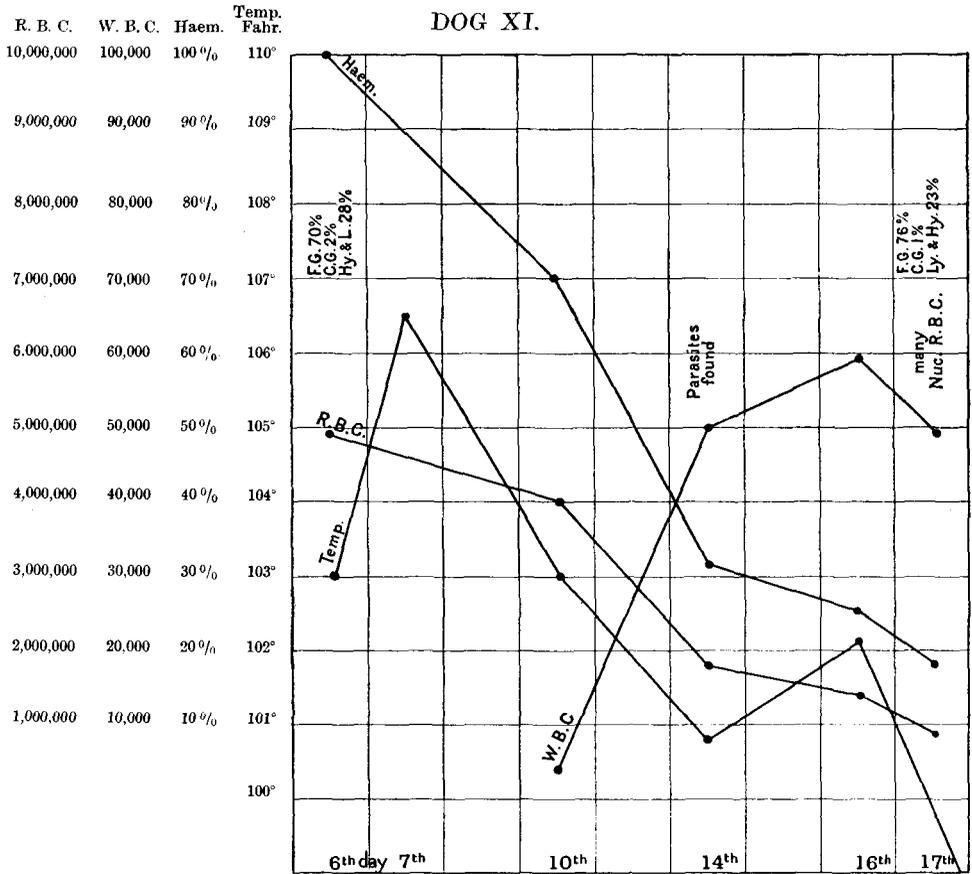
The haemoglobin was always diminished in amount, closely following the diminution in the number of red corpuscles. The smallest amount found was in Dog XI, in which it was only 17% of the normal.

Usually the leucocytes were greatly increased from the time the parasites appeared in the blood. In one dog they numbered nearly 52,000 per c.mm. and in another they increased to 60,000.

On the contrary in Dog III there was a diminution in the number of the leucocytes. Both the polynuclear and the mononuclear forms appeared to share in the general increase.



DOG XI.



Abbreviations in the Charts.

Haem. = Haemoglobin.  
 Temp. = Temperature.  
 F.G. = Finely granular Leucocytes.  
 C.G. = Coarsely " "

R. B. C. = Red blood corpuscles.  
 Nuc. R. B. C. = Nucleated red blood cells.  
 Hy. & Ly. = Hyalines and Lymphocytes.  
 W. B. C. = Leucocytes.