

## The occurrence of *Piroplasma pitheci* in a Vervet Monkey (*Cercopithecus aethiops cloetei* Roberts) in South Africa.

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THE occurrence of *P. pitheci* was recorded by Ross (1905) in several monkeys belonging to the genus *Cercopithecus*. The affected animals did not show any clinical symptoms apart from febrile reactions. Three years later the same preparations were re-examined by Nuttall and Graham-Smith, who stated that these parasites were of the *P. bigeminum* and *P. canis* type. Castellani and Chalmers (1908) described piroplasms in a monkey *Macacus pileatus* under the name *P. cellii*. A detailed account on the pathogenicity of *P. pitheci* in splenectomized and non-splenectomized monkeys belonging to the genus *Cercopithecus* and *Macacus* is given by Kikuth (1927). His experiments showed that non-splenectomized monkeys did not suffer from the infection, whereas in splenectomized animals numerous parasites appeared which produced severe anaemia, loss in condition and in one case death. Furthermore, he was able to show that trypan blue caused the parasites to disappear from the peripheral blood.

Schwetz (1933) described piroplasms resembling those described by Ross in two monkeys, one belonging to the genus *Cercopithecus* and the other to a species of *Cercocoebus*.

Through the kindness of Dr. A. D. Thomas of this Institute the writer obtained blood and spleen smears from an apparently healthy vervet-monkey which was shot on the farm Rossbach in the district Zoutpansberg in the Transvaal.

The films were stained with Giemsa. Piroplasms could be demonstrated in rare numbers identical with those described by Ross as *P. pitheci*. Only endoglobular forms were present. One, two and on one occasion four parasites per cell were seen. The majority were oval in shape, measuring from  $1.5\mu - 3\mu$  in length by  $1\mu - 2\mu$  in width. The ring forms measured from  $2.5\mu - 3.0\mu$  in diameter and the pear shaped forms  $2.5\mu$  long and  $1.5\mu$  wide. No actively dividing forms could be found. The nucleus of the elongated forms is situated at the broader end and in the ring forms consists of a band situated along a portion of the periphery. Slight anaemic changes were present in the nature of polychromasia and anisocytosis as well as a few normoblasts.

## PIROPLASMA PITHECI IN A VERVET MONKEY.

Table showing the different species of monkeys in which *Piroplasms* have been described.

Parasite.	Host.	Country.	Author.	Year.	Remarks.
<i>P. pitheci</i>	<i>Cercopithecus sp.</i>	Uganda....	Ross.....	1905	Naturally infected cases.
<i>P. cellii</i>	<i>Macacus pileatus</i>	Ceylon....	Castellani and Chal- mers	1908	The authors substituted the name <i>Theileria cellii</i> .
<i>P. pitheci</i>	<i>Cercopithecus sp.</i>	Africa.....	Kikuth....	1927	Parasites appeared in the blood as result of splenectomy.
<i>P. pitheci</i>	<i>Macacus rhesus</i>	Germany..	Kikuth....	1927	This species of monkey found to be susceptible after receiving infected blood from a <i>Cercopithecus</i> monkey.
<i>P. pitheci</i>	<i>Cercopithecus sp.</i>	Belgium- Congo	Schwetz..	1933	Naturally infected case.
<i>P. pitheci</i>	<i>Cercocobus sp.</i>	Belgium- Congo	Schwetz..	1933	Naturally infected case.
<i>P. pitheci</i>	<i>Cercopithecus aethiops Cloetei</i> Roberts	Low Country Transvaal, South Africa	Neitz.....	1937	Naturally infected case.

## LITERATURE.

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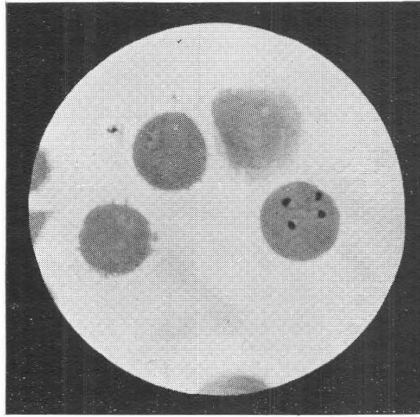


Fig. 1. *Piroplasma pitheci*, showing four parasites in an erythrocyte.  $\times 1500$ .

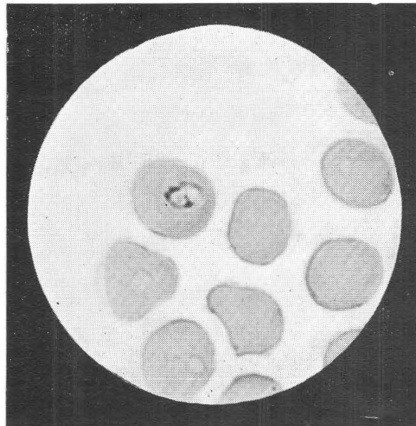


Fig. 2. *Piroplasma pitheci*, showing one large parasite in an erythrocyte.  $\times 1500$ .