BREINL

A NEW POROCEPHALUS (*POROCEPHALUS CERCOPITHECI* n. sp.)

BY

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From the Runcorn Research Laboratories of the Liverpool School of Tropical Medicine

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At the autopsy on one of our experimental monkeys (a large female *Cercopithecus callitrichus*), in the left lower lobe of the lung, a subpleural cyst about 3 mm. in diameter was noticed. This cyst contained an immature example of a Porocephalus coiled up inside it. Although the whole lung was carefully dissected, no other specimens were found; the other organs and the gut were also searched without success.

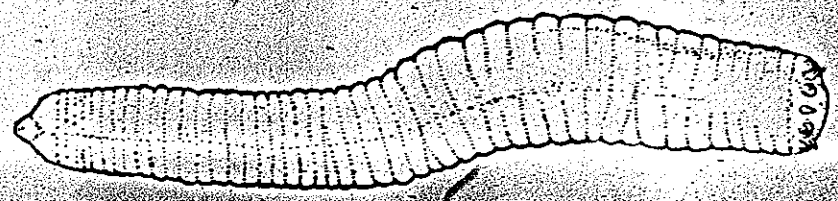

FIG. 1.

The body is a uniform greyish white in colour (fig. 1). It exhibits a separation into head (cephalo-thorax?) and body, the latter being divided into about 45 annuli, which become very indistinct towards the posterior end. The distance between the annuli is greatest towards the anterior end, and gradually diminishes posteriorly.

The dimensions of this specimen are:—Length, 10 mm.; diameter at anterior extremity, 1·17 mm.; and diameter at posterior extremity, 0·90 mm.

The short, bluntly-rounded head (fig. 2) is cut off from the body by a distinct groove passing completely round the animal. The dorsal surface of the head is slightly curved. The ventral surface is convex and bears two pairs of hooks, one on each side of the median mouth. This latter is surrounded by a chitinous ring, oval in shape, about 0·19 mm. in length, and 0·8 mm. in breadth. The inner hooks are single, each consisting of a stout, strongly-curved chitinous process 0·24 mm. in length. In the outer pair, from the base of each hook arises a slightly curved unciform appendage (0·11 mm. in length), as in all the hooks of *Porocephalus najae-sputatricis*, Leuckart. The hooks of both the outer and inner parts are jointed at their bases.

The body exhibits a median line running along the ventral surface to the posterior extremity.

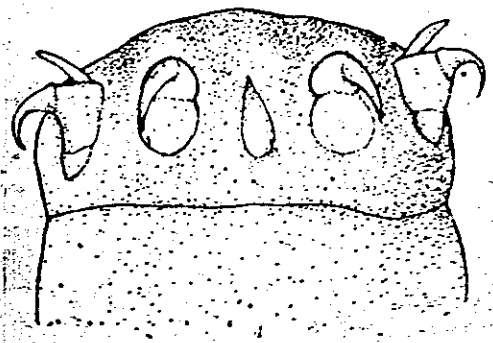

FIG. 2.

The anus is a small aperture situated at the apex of a small papilla at the posterior extremity. Immediately beneath it is the genital aperture.

This species is distinguished from the known species of Porocephalus by the presence of an appendage on the *outer* pair of hooks only. We propose the name *Porocephalus cercopitheci* in view of the host.

The type specimen of this species is in the museum of the Liverpool School of Tropical Medicine.

COMPARATIVE CHEMO-THERAPEUTICAL STUDY OF ATOXYL AND TRYPANOCIDES

PART II

BY

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Our previous work[1] on the chemo-therapeutics of Atoxyl has led us to the conclusion that a combination *in vitro* takes place between proteins, and Atoxyl mono-acetylated Atoxyl and mono-benzoylated Atoxyl respectively; whilst, on the other hand, such a combination does not occur between proteins, and sodium arsenate acetyl-benzoyl Atoxyl and sodium-p-hydroxy-phenyl-arsenate. This work has been continued by injecting the above-mentioned drugs into experimental animals; these reacting in an analogous way to the serum-proteins *in vitro*, with only one exception—acetyl-benzoyl Atoxyl—which combined with the serum proteins *in vivo*. This reaction, however, was only to be expected, as the organism saponifies the acetyl group, and the resulting benzoyl Atoxyl acts in the same way as mono-benzoyl Atoxyl *in vitro*.

Technique.—Rabbits were injected for several months, twice weekly, with Atoxyl, Sodium arsenate, acetylated and benzoylated Atoxyl, Benzoyl-acetyl Atoxyl, and Sodium-hydroxyl-phenyl-arsenate. Usually 1 c.c. of 1 per cent. solution of the drug was injected.

After a time, 20 c.c. of blood was taken from the jugular vein, and the serum used for analysis.

The arsenic was estimated in the same way as in our previous work, the slightly modified Sanger's method being adopted. Gold chloride was used as developer in preference to hydrochloric acid.

The results of the experiments are given in the following table

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