

**COENURUS OF TAENIA BRAUNI
SETTI PARASITIC IN MAN AND
ANIMALS FROM
THE BELGIAN CONGO AND
RUANDA-URUNDI**

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Coenurus of *Taenia brauni* Setti parasitic in Man and Animals from the Belgian Congo and Ruanda-Urundi

IN 1952 I was able to observe for the first time the life-cycle of *Taenia brauni* Setti (1897).

This tapeworm lives, in the adult stage, in the intestines of dogs and jackals in the Belgian Congo, and its larvæ, of the *Coenurus* type, have been found in *Nature* in wild rodents (*Lemniscomys striatus* L.).

On feeding laboratory-bred white mice with proglottids found in the droppings of parasitized dogs, I have succeeded in observing the development within them of *Coenurus*. On the other hand, I was successful in obtaining adult worms by feeding non-infected young dogs with fragments of *Coenurus* collected from wild rodents which were naturally infected with the parasite¹.

Afterwards I discovered the *Coenurus* of this tapeworm in numerous other wild rodents in Ruanda-Urundi (*Rattus r. rattus* L., *Tachyoryctes ruandae* Lönnb. and Gyld., *Otomys irroratus vulcanius* Lönnb. et Gyld., *Grammomys surdaster* Thom. et Wrought., and *Dendromus pumilio lineatus* Hell.) as well as in a monkey (*Cercopithecus mitis doggetti* Poc.) and in man (native). I never found it in sheep or goats nor in the wild rabbit, although this animal is very common in the region.

In wild rodents the *Coenurus* is most often found under the skin; but it may be found also on other parts of the body, namely, in the pleural and abdominal cavities and in the brain. The percentage of infected rats varies very much according to the places investigated, but in certain places it may reach up to 20 per cent of the animals examined.

Cerebral coenurosis of rodents has been found only on three *Rattus r. rattus* in the vicinity of Astrida. These *Coenuri* were rather big and situated in different parts of the brain. Two of the three infected rats had also *Coenuri* on other parts of the body.

The case of cerebral coenurosis of the ape was discovered in the region of the Akanyaru (near Astrida). A globular *Coenurus*, 2 cm. in diameter, was found embedded in the parietal lobe. This ape carried two other *Coenuri*: one, of the size of a large pea, was in part nestled in the apex of the heart; the other, much larger, was found in the region of the parotid gland.

In man (native) I have observed eight cases of coenurosis between the years 1948 and 1956, all situated under the skin. Of these eight cases, seven were children, the ages varying between 11 months and 5 years; the last one was a boy of fourteen.

In four children the tumour was found along the ribs, in the four others it was found elsewhere on the trunk. The *Coenurus* was a solitary one in all patients. The dimension of the tumour varied from the size of an almond to that of a large plum; the form being globular or elongated.

The morphological study of all *Coenuri* showed that they belonged to *Taenia brauni* Setti. This tapeworm is extremely frequent in dogs and jackals throughout the Ruanda-Urundi area and Ituri region (Eastern Congo) and it is, together with *Taenia hydatigena* Pallas, the only cestode of the *Taenia* genus found in the dog of these regions².

It is my opinion that the *Coenurus* found by Taramelli and Dubois under the skin of a native woman (of the Belgian Congo) belongs also to *Taenia brauni*³.

It is known that *Coenuri* of *Taenia serialis* or of *Taenia multiceps*, as parasites of man, occupy on this accidental host the same site as on the habitual intermediary host: respectively under the skin for *Coenurus serialis* and in the brain for *Coenurus cerebralis*.

The larva of *Taenia brauni* is less specific in the choice of its location in its natural hosts than those of the preceding species. It seems to me most probable that it would behave in the same manner in man, and that, besides its normal location under the skin, one may expect to find it in the inner organs as well as in the brain. In this connexion it may be pointed out that, during recent years, four cases of human cerebral coenurosis have been described in South Africa all attributed by the authors to *Taenia multiceps*⁴. It could be that these *Coenuri* belong, in fact, to *Taenia brauni*.

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¹ Fain, A. *Rev. Suisse Zool.*, 59, 487 (1952).

² Fain, A. (two papers in the press).

³ Taramelli, R., and Dubois, A., *Ann. Soc. Belge Méd. Trop.*, 11, 151 (1931).

⁴ Becker, B. J. P., and Jacobson, S., *Lancet*, ii, 1202 (1951).