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RESEARCH NOTE

TAENIA MULTICEPS LARVA FROM A GEMSBOK

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Round (1968) records polycephalic cestode larvae (*Coenurus*) from various African mammals in Zoological gardens, viz. *Alcelaphus* sp., *Capra ibex* Linnaeus, 1758, *Hippotragus equinus* (Desmarest, 1804), *Sylvicapra grimmia* (Linnaeus, 1758). In the last eight years, however, similar larvae have been recovered from four free-living gemsbok, *Oryx gazella* (Linnaeus, 1758), in South West Africa (Verster, unpublished data).

Because polycephalic larvae from intramuscular and subcutaneous tissues of ruminants have been assigned to either *Taenia multiceps* Leske, 1780 or to *Taenia gaigeri* (Hall, 1916), an available larva from one of these gemsbok was fed to a domestic dog to establish the identity of the resulting adult.

Materials and Methods

An intact larva from the hindquarter of a gemsbok was fed to a domestic dog. At autopsy 29 days later, more than a hundred adult cestodes were recovered from its small intestine.

Description of the adult

The total length of five of these cestodes varies from 55 to 94 mm. The scolex is 567 to 672 μ, the rostellum 210 to 294 μ and the suckers 184 to 336 μ by 184 to 294 μ in diameter. There are 30 rostellar hooks arranged in two crowns; the large hooks are from 156 to 184 μ and the small ones from 108 to 124 μ in length.

There are 200 to 250 testes in a single layer; posteriorly they extend to the level of the vitellarium but are not confluent along the posterior margin. The genital ducts pass between the ventral and dorsal excretory vessels to cross from the medulla into the cortex. The cirrus pouch extends to the ventral excretory vessel but does not cross into the medulla. In the sexually mature proglottid it is 240 to 256 μ long and 72 to 96 μ wide.

The two lobes of the ovary are of equal size. There is a "pad" of muscle fibres against the anterior wall of the vagina between it and the cirrus pouch. This "pad" is 16 μ in diameter and situated 80 μ from the vaginal opening in the genital pore. The uterus is an unbranched tube and does not contain ova.

Discussion

According to Hall (1919) the larva of *T. multiceps* occurs only in the central nervous system of the intermediate host whilst that of *T. gaigeri* occurs not only in the central nervous system but also in other organs including intramuscular and subcutaneous tissues. Nagaty & Ezzat (1947) infested a dog with a coenurus from the subcutaneous tissues of a hybrid Nubian ibex and an Egyptian goat in the Giza Zoological Gardens. They assigned the resulting cestodes to *T. multiceps* and expressed the opinion that *T. gaigeri* is not a valid species. To clarify the situation Verster (1969) re-examined Nagaty and Ezzats' specimens and found them to be identical with the type specimen of *T. gaigeri* and also with *T. multiceps* from various canines she infested with larvae from the brain of experimentally infested sheep. This is further confirmation that polycephalic larvae in muscular and subcutaneous tissues of goats and antelopes must be assigned to *T. multiceps*.

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References

Hall, M. C., 1919. The adult taenioid cestodes of dogs and cats and related carnivores in North America. *Proc. U.S. natn. Mus.*, 55, 1-94.

Nagaty, H. F. & Ezzat, M. A. E., 1947. On the identity of *Multiceps multiceps* (Leske, 1780), *M. gaigeri* Hall, 1961 and *M. serialis* (Gervais, 1845), with a review of these and similar forms in man and animals. *Proc. helminth. Soc. Wash.*, 13, 33-44.

Round, M. C., 1968. Check list of the helminth parasites of African mammals of the orders Carnivora, Tubulidentata, Proboscidea, Hyracoidea, Artiodactyla and Perissodactyla. *Tech. Commun. Commonw. Bur. Helminth.*, 38, 1-252.

Verster, Anna, 1969. A taxonomic revision of the genus *Taenia* Linnaeus, 1758 *s. str. Onderstepoort J. vet. Res.*, 36, 3-58

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