Hymenolepis meszarosi sp. n. (Cestoidea), a Parasite of Alticola roylei (Rodentia) in Mongolia

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Abstract — Hymenolepis meszarosi sp. n. (Hymenolepididae) is described from Alticola roylei captured in Mongolia. With 6 figures.

The present paper is based on a specimen of cestode recovered at an autopsy of 7 rodents representing A. roylei. The rodents were dissected by Dr. F. MÉSZÁROS, helminthologist of the Department of Zoology, Hungarian Natural History Museum, Budapest, during his stay in Mongolia. The new species is dedicated to the collector. A detailed description, figures, systematical and taxonomical position of the species are given.

Hymenolepis meszarosi sp. n. (Figs. 1—6)

Description of holotype: Body length 20 mm, maximum width 0.250 mm. Scolex 0.128×0.100 mm in diameter, with 4 suckers and a rostellum armed with a crown of hooks. Suckers 0.050 mm in diameter. Hooks of almost fraternal type, 24 in number, 0.012-0.014 mm long. Rostellar sac 0.044×0.034 mm. Male genital organs consisting of 3 testes forming a triangle. One testis poral, the remaining two aporal, all three spherical, 0.060 mm in diameter. Bursa cirri very small, 0.039 mm long and only 0.008 mm wide, in poral part of proglottides behind excretory canals. In fully mature proglottides, bursa cirri measuring 0.037×0.013 mm. Receptaculum seminis in hermaphrodite proglottides very distinct, elongated,

Figs. 1—6. Hymenolepis meszarosi sp. n.: 1 = scolex, 2 = hooks from the scolex in various position, 3—4 = hermaphrodite proglottides, 5 = mature proglottis, 6 = egg

0.060–0.075×0.015–0.016 mm. Ovary between testes and vitelline gland. Excretory canals, 0.010 mm wide, decurrent on both sides of proglottides. Uterus developing in upper part of proglottides, later occupying entire proglottis. Mature proglottides with eggs 0.600×0.125 mm. Eggs 0.052–0.059×0.038–0.044 mm, oncosphere 0.022–0.025×0.020–0.022 mm. Hooks of oncosphere 0.012–0.013 mm long.

Host: Alticola roylei semicanus G. ALLEN, 1924.

Locality: Barun Urt, Mongolia, 112° 37' East, 47° 18' North, 1240 m above sea level, 11. 8. 1972. leg. F. MÉSZÁROS

Location in host: small intestine.

The single described specimen is the holotype, deposited in the Zoological Department of the Hungarian Natural History Museum, Budapest, Coll. No. M. 42/1—1972.

Differential diagnosis: The cestodes of the genus Hymenolepis possessing hooks on their scoleces and parasitizing rodents, have often been discussed in the literature (for a survey, see BAER & TENORA 1970). Recent papers also carry descriptions of new cestode species of this genus recovered from rodents (TOKOBAYEV 1966, GREENBERG 1969). If all known Hymenolepis species parasitizing rodents (H. maris sylvatici (RUDOLPHI, 1819) and H. myoxi (RUD., 1819) – see JOYEUX & BAER 1936, TENORA 1965) and the literature data of all above-cited authors are taken into consideration, the species H. meszarosi will be found to closely resemble Hymenolepis fraterna (STILES, 1906).

H. meszarosi differs from H. fraterna in the following characters: 1. the hooks are shorter in the average: 0.014–0.021 mm (H. f.): 0.012–0.014 mm (H. m.); 2. the hooks are of a different type: typical fraternal (H. f.): similar to fraternal (H. m.); 3. the size of hooks of the oncosphere in comparison with those of the scolex: the hooks of the oncosphere are always shorter than those on the scolex (H. f.): the hooks of the oncosphere are of almost the same size as those on the scolex (H. m.).

As to other data available in literature, the following findings of cestodes of the family Hymenolepididae have been reported from rodents in the neighbouring countries: Hymenolepis sinensis OLDHAM, 1929, was found in China in Cricetulus griseus, and in the Tuva ASSR in Cricetulus barabensis (SULIMOV, 1963 in SCHALDYN 1965). MATHSCHULSKY (1958) reported Dicranotaenia sp. from Cricetulus furunculus from the Buryat ASSR. The species H. sinensis differs in principle from H. meszarosi in the type of hooks, length of hooks and host species (BAER & TENORA 1970). As regards Dicranotaenia sp. MATHSCHULSKY, 1958, neither a description nor figures were given.

It should be stressed that this is the first finding of a cestode of the genus Hymenolepis in Alticola roylei in Mongolia.

References

МАЧУЛЬСКИЙ, С. Н. (1958) Гельмінтофауна грызунів Бурятської АССР. — Раб. по гельм. к 80-летию акад. Скрябина, Изд. АН СССР, п. 219—224.


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