



ISSN: 0048-0169 (Print) 1176-0710 (Online) Journal homepage: www.tandfonline.com/journals/tnzv20

# Longevity of Taenia ovis in a dog

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To cite this article: G.G. Gregory (1978) Longevity of Taenia ovis in a dog, , 26:10, 262-262, DOI: 10.1080/00480169.1978.34561

To link to this article: https://doi.org/10.1080/00480169.1978.34561

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Published online: 23 Feb 2011.



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## CORRESPONDENCE

### LONGEVITY OF TAENIA OVIS IN A DOG

Sir,- Great variation in the fecundity of Taenia ovis and T.hvdatigena has been reported between dogs. For T.ovis, prepatent periods from 44 to more than 126 days, and longevity as short as 110 days, have been reported<sup>(1)</sup>.

One dog in that study was reported to be still passing T.ovis proglottides 5 years after infection. This communication records further details of that infection.

A male, 4-month-old, cross-bred pup was fed one Cysticercus ovis in heart muscle on 9th May, 1970. The dog was bred at the laboratories and was fed throughout its life on prepared dog foods, and at no stage (other than at the time of infection) had access to raw meat. He was kept in a kennel with a slat-floored run, under which faeces and proglottides were collected in a tray of water.

The first proglottis was detected on 22nd June, 1970 (prepatent period 44 days) and the last on 8th June, 1977. The dog was killed and autopsied on 15th November, 1977. No Taenia spp. was detected. The tapeworm lived for 7 years and 1 month in this dog.

The rate of detection of proglottides was recorded during the first 14 months and the last 2 years of the infection but, in the intervening period, only the continued patency of infection was recorded.

During the initial stages of infection proglottides were passed at a rate exceeding 2.5 per day. This had decreased to 1.1 per day in 1975, 0.6 per day in 1976 and 0.3 per day in 1977 (Table I).

| TABLE I: NUMBERS OF PROGLOTTIDES OF TAENIA OVIS | S |
|---|---|
| DECTECTED IN FAECES OF A DOG PER MONTH DURING   | j |
| SEVERAL STAGES OF THE INFESTATION               |   |

| Month     | 1970        | 1971 | 1975 | 1976 | 1977     |
|-----------|-------------|------|------|------|----------|
| January   | -           | 95   | -    | 22   | 8        |
| February  | -           | 71   | -    | 19   | 10       |
| March     | -           | 90   | -    | 24   | 7        |
| April     | -           | 84   | -    | 28   | 3        |
| May       | -           | 68   | -    | 25   | 9        |
| June      | 49          | 71   | no   | no   | 4        |
|           | (from 22nd) |      |      |      | (to 8th) |
| July      | 68          | 73   | 30   | 18   | -        |
| August    | 106         | 58   | 26   | 11   | -        |
| Sentember | 80          | no   | 38   | 18   | -        |
| October   | 67          | -    | 45   | 17   | -        |
| Nocember  | 84          | -    | 36   | 12   | -        |
| December  | 74          | -    | 30   | 11   | -        |
| TOTAL     | 528         | 610  | 205  | 205  | 41       |
| Davs      | 193         | 243  | 184  | 335  | 159      |
| Av./day   | 2.7         | 2.5  | 1.1  | 0.6  | 0.3      |

no = no observations from September, 1971 to June 1975 and during June, 1976.

These results demonstrate that the longevity and period of patency of T.ovis infection can extend over seveal years. Presumably. T. hydatigena may behave similarly, although there are no records of this worm remaining viable for more than 342 days(3).

The danger of one infected dog remaining untreated in an ovine cysticercosis control programme is, therefore, potentially very significant. However, infections of Taenia spp. in dogs appear to be self-limiting and do not last until the host dies, as suggested for T.saginata in man<sup>(2)</sup>.

G. G. Gregory, 12 September, 1978. Department of Agriculture, P.O. Box 407, Launceston, Tasmania, 7250, Australia.

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