

A Human Case of Thelaziasis in Korea

Sung-Tae Hong, Sang-Hyun Lee* and Hoon Han**

Department of Parasitology, College of Medicine, Seoul National University,

*Department of Ophthalmology, College of Medicine, Korea University**

*and Department of Microbiology, Catholic Medical College***

Thelaziasis in Korea is caused exclusively by *Thelazia callipaeda* as the literature are concerned. Total 11 human cases have been recorded with the worm descriptions in Korea (Hong *et al.*, 1981; Im *et al.*, 1982).

The dog was revealed as its natural definitive host in Korea (Choi *et Cho*, 1978). Especially the military dogs were observed heavily infected by the eyeworm (Seung *et Kang*, 1979).

The authors obtained 2 males of *T. callipaeda* from a 36-year old Korean woman, who lived in Uijongbu, Kyonggi-do. She suffered from foreign body sensation and itching of conjunctiva. With those complaints she visited a private eye clinic on June 30, 1984. Both of her eyes were hyperemic and lacrimation increased. A total of 4 white thread-like worms was isolated from inferior or superior conjunctival fornices of both eyes. The patient was not followed-up after removal of the worms.

Two of the worms were destroyed and only 2 were observed parasitologically after clearing and mounting. Both of the worms were male, one was 7.3mm long and 0.36mm wide, another 5.7mm long and 0.31mm wide (Fig. 1 and 2). Eight pairs of preanal papillae were observed at tails of both worms, and only 2 pairs of postanal ones were found at tail of the longer worm. Both of the worms had copulatory spicules at their anus (Fig. 3 and 4). The width of cuticular cross striation measured 3.36 μm at midportions of both worms, and its number per millimeter was 297.6. The width at esophageal level was 1.87 μm in the longer and 2.4 μm in another and 2.24 μm in the former and 2.04 μm in the

latter at tail portion.

The identification keys between two species of human *Thelazia*, *T. callipaeda* and *T. californiensis*, are the coarseness of transverse cuticular striation, location of vulvar opening in female and the number of caudal papillae in male. In *T. callipaeda* the striations number from 150 to over 300 per millimeter, while in *T. californiensis* they number from 30 to 111. The male worm of *T. callipaeda* normally has 8 to 10 pairs of preanal papillae and 5 pairs of postanal ones, while *T. californiensis* male has 6 to 7 pairs of preanal papillae and 3 pairs of postanal ones. The vulvar opening of female worm is observed anterior to esophagointestinal junction in *T. callipaeda*, but that of *T. californiensis* is located posterior to the junction (Kofoid *et Williams*, 1935).

According to the keys, these two male worms are *T. callipaeda* by the number of transverse cuticular striation per millimeter, though caudal papillae were incompletely observed.

The vector host of this worm is not outlined yet in Korea, though *Amiota* spp. are known in Japan (Nagada, 1964). Only the dog is known as the reservoir host, especially the military German shepherds are infected by the worm with high rate and heavy burden. According to the records on human cases and the reservoir host, the worm must have prosperous life cycle in Korea. Therefore, it is expected that more human cases will be detected further.

The records of human thelaziasis cases in Korea showed that most of the cases lived in Seoul or in the suburbs of Seoul and were

young adults (Hong *et al.*, 1981). Present case lives also in the suburbs of Seoul and ages 36. She is the 12th recorded human case of thelaziasis in Korea.

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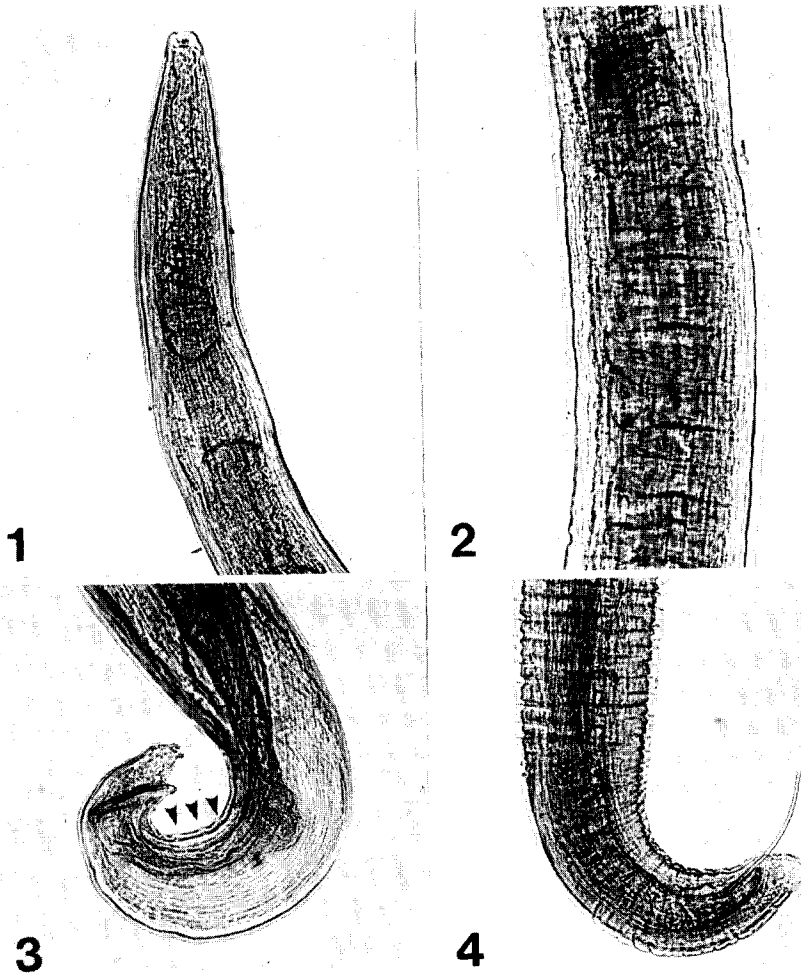


Fig. 1. Head part of the longer worm, $\times 100$.
Fig. 2. Midportion of maximum width of the longer one, $\times 100$.
Fig. 3. Tail of the longer worm showing spicules and caudal papillae (arrows), $\times 100$.
Fig. 4. Tail of the shorter worm showing spicules and transverse cuticular striation, $\times 100$.

≡국문초록≡

동양안충증 1례

서울대학교 의과대학 기생충학교실, 고려대학교 의과대학 안과학교실*
및 가톨릭대학 의학부 미생물학교실**
홍 성 태 · 이 상 현* · 한 훈**

1984년 8월에 양안의 결막염 때문에 안과 진찰을 받은 36세 한국인 여자의 양쪽 결막낭에서 흰색 실 모양의 충체 4마리를 직출하였다. 환자는 경기도 의정부시에 거주하고 있었다.

그 중 2마리를 기생충학적으로 관찰한 바, 각각 길이 7.3mm, 폭 0.36mm와 길이 5.7mm, 폭 0.31mm의 선충으로 모두 교미침을 가지고 있었다. 표피의 가로 주름이 1mm당 297.6개이었고, 미부 유두의 경우 항문 전후로 관찰할 수 있었으나, 그 수를 완전히 파악할 수는 없었다.

이상의 소견으로 이 두 마리 충체를 *Thelazia callipaeda*로 동정하였고, 이 예를 국내 제 12번째의 동양안충증례로 기록하고자 한다.