[Jpn. J. Parasitol., Vol. 40, No. 1, 99–101, February 1991]

Research Note

Clinostomum complanatum from the Pharynx of a Woman in Akita, Japan
A Case Report

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(Accepted for publication; February 19, 1991)

Key words: *Clinostomum complanatum,* parasitic pharyngitis, pharynx

Parasitic laryngo-pharyngitis (or halzoun) is caused by leeches, trematodes of the genus *Clinostomum* and larval *Fasciola hepatica* (Witenberg, 1944). Up to the present, six human cases of parasitic laryngo-pharyngitis due to *Clinostomum* infection have been reported (Yamashita, 1938; Witenberg, 1944; Kamo *et al.*, 1962; Sakaguchi *et al.*, 1966; Sano *et al.*, 1980; Hirai *et al.*, 1987). This paper deals with the seventh case.

A seventy-year-old female farmer (Y. I.), residing in Moritake, Yamamoto-machi, Yamamoto-gun, Akita Prefecture, visited Satoh Clinic because of the irritation and pain of pharynx lasting for about one month. Other signs and symptoms which the patient showed and complained of were cough, deglutitive pain, flare of the pharynx, lacrimation and fatigue. One (I.S.) of us discovered a worm-like foreign body attached to the left palatopharyngeal arch of the patient, removing and preserving it in saline solution for about 3 days. This worm was then fixed with 70% alcohol and stained with acetic-alum carmine.

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The morphology and measurements (Fig. 1): Body linguiform, unarmed 7.00 mm in length and 2.43 mm in maximum width at the median level of body. The left posterior end of the body damaged when removed from the site. Oral sucker subterminal, 0.273×0.444 mm. Acetabulum large, 0.848×0.859 mm, situated ventrally at middle of the anterior third of body. Pharynx obscure, situated near the posterior margin of the oral sucker. Intestinal ceca bifurcate immediately posterior to the pharynx and run posteriorly. The whole length of descending ceca, however, not traceable due to poor stain. Testes slightly lobed, tandem, situated in the posterior third of body. Anterior testis 0.450×0.727 mm; posterior testis triangular, 0.394×0.990 mm. Cirrus pouch, 0.345×0.440 mm, involving the twisted seminal vesicle, situated immediately antero-dexter to the ovary. Genital pore opens near the anterior margin of the anterior testis. Ovary elliptical, 0.200×0.430 mm, situated between the cirrus pouch and posterior testis. Ootype complex indiscernible. Vitellaria extend from the post-acetabular level to the posterior end of body, occupying the lateral margins of body and the central part of the body as well only in the hind region of the posterior testis. Uterus winds and extends between the levels of posterior margin of the acetabulum and of the anterior margin of the posterior testis. Eggs elliptical, operculated, $0.118–0.125 \times 0.075–0.080$ mm.

This specimen was poorly stained with car-

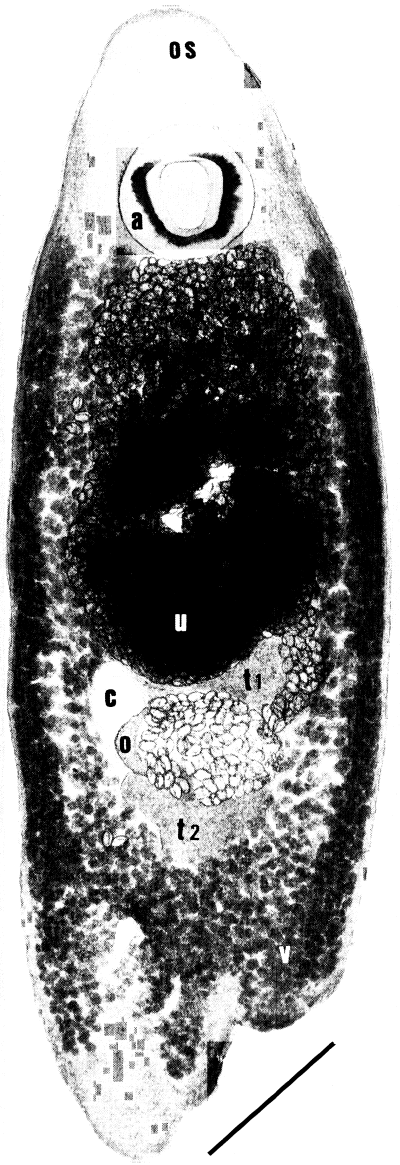

Fig. 1. *Clinostomum complanatum* (ventral view) removed from the pharynx of a seventy-year-old female patient. os, oral sucker; a, acetabulum; t1 & t2, anterior and posterior testes; c, cirrus pouch; o, ovary; u, uterus; v, vitellaria. Scale = 1.0 mm.

mine probably due to the retardation of appropriate fixation; the whole length and shape of the intestinal ceca, ootype complex and excretory vesicle could not be traced. It is of interest to note, however, that the position of the genital pore in the present specimen was displaced to the anterior margin of the anterior testis. Regarding this, Ukoli (1966) has described that the displacement of the genital pore to the anterior margin of the anterior testis sometimes occurred in *C. complanatum*. Other morphological features including the size of eggs were identical to those of *C. complanatum*, although the measurements of the present specimen were slightly larger than those described previously (Yamaguti, 1933; Yamashita, 1938).

C. complanatum is commonly parasitic on some fish-eating birds and various species of fresh-water fishes serve as the second intermediate host of this parasite. In the present case, the patient has frequently eaten various fresh-water fishes (e.g., *Hypomesus japonicus, Carassius carassius* and others) captured in Lake Hachiro and at ponds nearby her house. *C. carassius* has been eventually shown to serve as the intermediate host of *C. complanatum* (Yamaguti, 1933). It can be surmised, therefore, that the patient was probably infected with this fluke through having eaten uncooked fresh-water fishes. The pharyngeal pain and other symptoms of the patient completely disappeared after the removal of the parasite.

References

1) Hirai, H., Ooiso, H., Kifune, T., Kiyota, T. and Sakaguchi, Y. (1987): *Clinostomum complanatum* infection in posterior wall of the pharynx of a human. Jpn. J. Parasitol., 36, 142–144.
2) Kamo, H., Ogino, K. and Hatsushika, R. (1962): A unique infection of man with *Clinostomum* sp., a small trematode causing acute laryngitis. Yonago Acta Medica, 6, 37–40.
3) Sakaguchi, Y., Yamamoto, T. and Yamada, N. (1966): *Clinostomum* sp., a trematoda parasite, removed from larynx of a man. End. Dis. Bull. Nagasaki Univ., 8, 40–44 (in Japanese).
4) Sano, M., Mogi, K. and Kamegai, S. (1980): A case of *Clinostomum* sp. throat infection. Jibi Inkoka (Otolaryngology), 52, 1037–1039 (in Japanese).
5) Ukoli, F.M.A. (1966): On *Clinostomum tilapiae* n. sp., and *C. phalacrocoracis* Dubois, 1931 from Ghana, and a discussion of the systematics of the genus *Clinostomum* Leidy, 1856. J. Helminthol., 40, 187–214.

6) Witenberg, G. (1944): What is the cause of the parasitic laryngopharyngitis in the Near East ("Halzoun")? Acta Med. Orient (Jerusalem), 3, 191–192.
7) Yamaguti, S. (1933): Studies on the helminth fauna of Japan. Part I. Trematodes of birds, reptiles and mammals. Jap. J. Zool., 5, 1–134.
8) Yamashita, J. (1938): *Clinostomum complanatum*, a trematode parasite new to man. Annot. Zool. Jap., 17, 563–566.

A note added in proof: Two additional cases of *Clinostomum* sp. infection in man have been reported from Shiga Prefecture (Furukawa, T. and Miyazato, T.: Med. J. Kinki Univ., 12, 665–669, 1987) and Saga Prefecture (Umezaki, T. et al.: Jibi to Rinsho, 36, 665–668, 1990), Japan.