

## Case report of human infection with *Capillaria philippinensis*

In July 1988, a case of human infection with *Capillaria philippinensis*, so-called the intestinal capillariasis, was discovered at the National Taiwan University Hospital (NTUH). This is the first case reported in Taiwan.

The patient was a 58-year-old housewife from Ar-Lien village, Kaohsiung county. The case history revealed that her symptoms and signs began on July, 1987. The initial symptom was epigastric pain followed by watery diarrhea 10 days later. Thereafter borborygmus, frequent loose stools and weakness persisted. She called on many practitioners and was admitted to several hospitals without significant improvement. Over the next 2 weeks, she became emaciated with a 17kg weight loss, developed lower leg edema and became bed-ridden. In July 1988, she was admitted to NTUH. On admission, she was emaciated with a body weight of 39kg. In August 1988, the ova, larvae, and adult worm of *C. philippinensis* were detected in the direct smear of the patient's stool at the parasitology laboratory. Mebendazole 200mg twice a day was begun on August 9 for 20 days. After the third day of medication, no more *Capillaria* ova were seen even using the concentration method. She was discharged on August 31. At the second follow-up month, body weight had returned to her pre-morbid state (54kg) and the anemia was greatly reduced.

To determine whether her family were infected with *C. philippinensis* or not, the NTUH also collected the stool specimens from all family members. The result of these examinations were negative for *C. philippinensis*.

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Editorial note: *Capillaria philippinensis* is a parasite of fish-eating birds. In nature it has a fish-bird life cycle. When human populations disrupt the natural cycle by eating raw fish infected with the larvae of *C. philippinensis*, they may acquire the disease.

The larvae of *C. philippinensis* live in the small intestine for 2-3 weeks where they develop into adult worms. The length of the female adult worm is 2.3mm-5.3mm (average 3.6mm), and of the male adult worm is 1.5mm-3.9mm (average 2.6mm). The human infection of *C. philippinensis* was first reported in the Philippines. Nowadays cases of infection have been reported only from 5 countries: the Philippines, Thailand, Japan, Iran, Taiwan (The Republic of China). Infection in humans is endemic in the Philippines and Thailand, where there have been many human deaths from the disease. Japan, Iran, and Taiwan (Republic of China) have each reported only one human case. Because of the unique eating habits in the Philippines and Thailand where people eat raw fish with special seasonings, it is very easy for infection to establish in human populations there. The reason why this woman became infected is not clear. She denied eating any raw freshwater fish, and her family didn't have such symptom as chronic diarrhea. Though she had been to Thailand, Hongkong, Peng-Hu in 1981, Japan in 1982, and U.S.A. in 1987, the likelihood of her acquiring the infection where traveling is not clear. Recent findings suggest that fish-eating birds may be the natural hosts. These birds such as *Bulbulcus ibis*, *Nycticorax nycticorax*, and *Ixobrychus sinensis* are found in Taiwan. Therefore, the possibility of man acquiring the infection by directly or indirectly eating fresh-water fish with a larval stage of the parasite in this island cannot be discounted. Whether the infection may be transmitted through consumption of contaminated water and food is not known at this time.



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**R.O.C. EXECUTIVE YUAN/G.I.O. PUBLICATION NO 4485**  
**Printed by Hong Chang Printing Enterprise Co., Ltd.**  
**13, Lane 13, Pin He Road, Jong He City, Taipei Country**

