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## Tzu Chi Medical Journal

Pathology Page

## Clornorchiasis

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A 68-year-old woman with stomach cancer underwent radical gastrectomy accompanied by liver biopsy. Metastatic poorly differentiated adenocarcinoma was seen in the liver section. An incidental finding was one adult *Clonorchis sinensis* embedded in the bile ducts (Fig. 1).

Clonorchiasis is an infection of the hepatic biliary system by the Chinese liver fluke *C. sinensis*. Clonorchiasis is endemic in eastern Asia from Vietnam to Korea. Human infection is acquired by ingestion of inadequately cooked freshwater fish containing

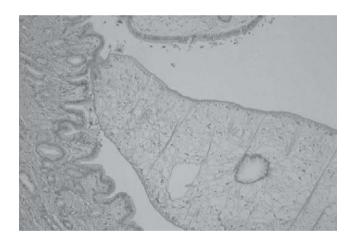


Fig. 1 — Histopathology shows an adult *Clonorchis sinensis* embedded in the bile duct (hematoxylin & eosin,  $400\times$ ).

*C. sinensis* larvae. When humans eat the fish, the cercariae emerge in the duodenum, enter the common bile duct through the ampulla of Vater, and mature into adult flukes in the distal bile ducts. The presence of the fluke usually causes only mild symptoms, but it is sometimes associated with bile duct stones, cholangitis and cholangiocarcinoma of the bile ducts.

The presence of *Clonorchis* in the bile ducts incites an inflammatory response which fails to eliminate the worms but causes dilatation and fibrosis of the ducts. Sometimes, the worms cause calculus formation within the hepatic bile ducts, leading to ductal obstruction. The adult *Clonorchis* persists in the ducts for decades, and longstanding infection is associated with an increased incidence of cholangiocarcinoma. The infestation is effectively treated with systemic antihelminthic agents. (*Tzu Chi Med J* 2010; 22(3):164)

## References

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