

中文題目：肝吸蟲感染之膽管癌

英文題目：Schistosomiasis infection resultant cholangiocarcinoma

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**Background:** It is known that schistosomiasis is a risk factor to cholangiocarcinoma. Here we reported a case whose cholangiocarcinoma was caused by schistosomiasis infection and being proved pathologically.

**Case Presentation:** A 67-year-old man presented to the Gastroenterology Outpatient for consultation on hepatic mass. The patient is a HBV (hepatitis virus B) carrier and receives regular surveillance at another hospital. One week before presentation, abdominal sonography had detected one mass, 3.5cm in size, with heteroechoicity character over the right hepatic lobe. Physical examination was unremarkable. Level of CEA, CA-199 and AFP were mildly elevated (10.9 ng/ml, 22 U/ml and 6.49 ng/ml, respectively). Upper endoscopy and colonoscopy were performed and only one tubular adenoma was noted. MRI with gadolinium administration revealed an ill-defined nodule at S5/S6 junction. The nodule presented enhancement in arterial and venous phase, compatible with cholangiocarcinoma (Figure A,B, red arrow). Tentative staging was T1N0M0 and Surgeon was consulted for operation. Right hepatic lobectomy was performed uneventfully. Cholangiocarcinoma was confirmed by pathology review. Out of expectation, calcified schistosomiasis eggs were identified (Figure C gross pathology and D, 400x magnification). Accordingly, diagnosis of cholangiocarcinoma with schistosomiasis was established.

**Discussion:**

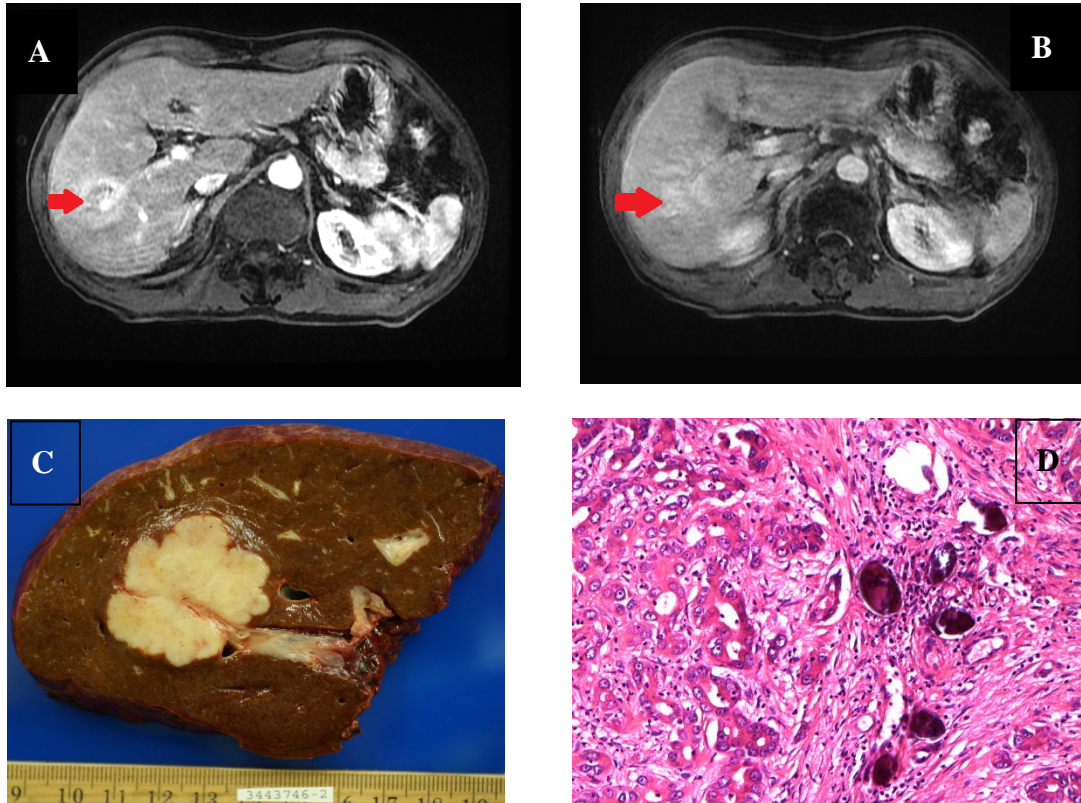
Cholangiocarcinoma is associated with (1) chemicals exposure, such as 1,2-dichloropropane (1,2-DCP)<sup>1, 2</sup> and dichloromethane (DCM)<sup>2, 3</sup>; (2) parasites infection, for example, *Clonorchis sinensis*, *Opisthorchis viverrini*, *Schistosomiasis mansoni*, *Schistosomiasis Japonicum*<sup>2, 4</sup>; (3) biliary tract diseases like cholelithiasis and primary sclerosing cholangitis (PSC)<sup>5</sup>.

In comparison to Western countries, where PSC serves as most remarkable risk factor to cholangiocarcinoma<sup>6</sup>, liver flukes infection is prevalent on East Asia countries. The incidence was reported as high as 100 per 100,000 in north Thailand<sup>7</sup>. It had been reported that with chronic liver fluke infection, 8-10% patients will develop cholangiocarcinoma<sup>7</sup>.

Given liver fluke such as schistosomiasis is a well-established carcinogen,

regular surveillance, like cirrhosis – HCC (hepatocellular carcinoma) relationship, may be a reasonable measure. More studies to validate the rationale are needed.

**Conclusion:** Liver fluke such as schistosomiasis is a risk factor to cholangiocarcinoma. When encountering patients with previous schistosomiasis infection and hepatic nodules, clinicians should be of high index of awareness to cholangiocarcinoma. Patients with chronic fluke infection may need regular surveillance.



**Keywords:** Cholangiocarcinoma, Schistosomiasis, Liver fluke

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