

Recurrent Pyogenic Cholangitis Unveiling Latent Clonorchiasis in a Filipino Migrant to Canada: Implications for Diagnosis and Management

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Background

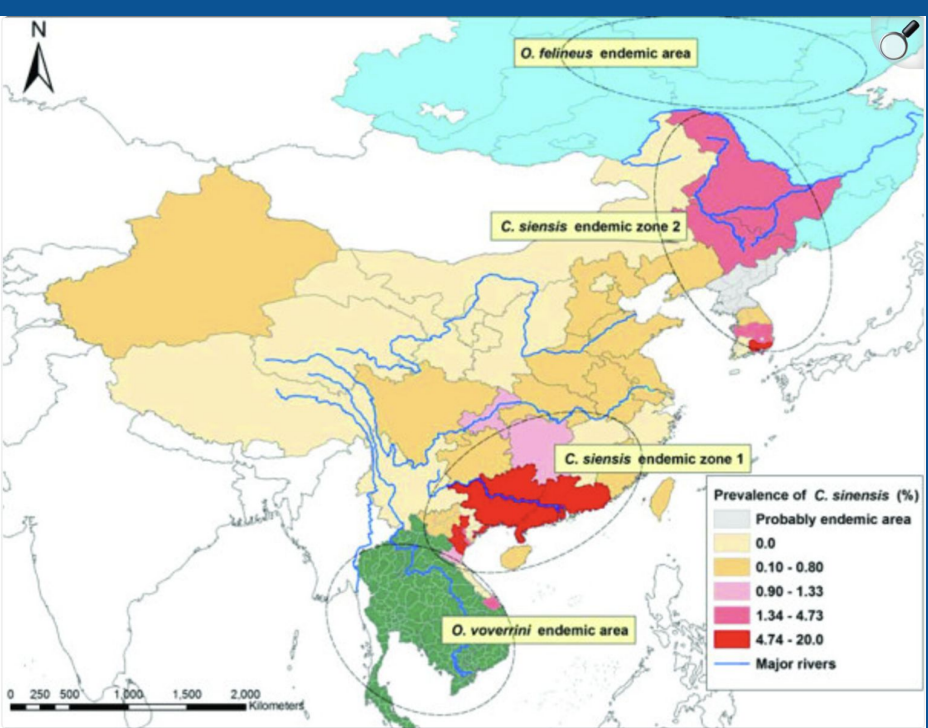
- *Clonorchis sinensis* is a liver fluke endemic to East Asia, transmitted via ingestion of raw or undercooked freshwater fish.
- Chronic infection can cause biliary inflammation, stone formation, and recurrent pyogenic cholangitis (RPC).
- With increased global migration, cases are emerging in non-endemic regions where diagnostic familiarity is low.

Case Description

- A 39-year-old Filipino woman living in Canada presented with 2-year history of intermittent right upper quadrant pain and persistently elevated cholestatic liver enzymes.

Investigations

- **Laboratory results:** ALT 151 U/L, AST 112 U/L, ALP 532 U/L, GGT 749 U/L, normal eosinophils, IgE 408 Viral hepatitis and serologic testing for other helminths negative..
- **Stool O&P testing:** negative on three occasions.
- **Imaging:**
 - Ultrasound → intrahepatic ductal dilation.
 - MRI → multiple intrahepatic stones, right-lobe atrophy, and periductal enhancement consistent with recurrent pyogenic cholangitis.



Global distribution of three major species of liver flukes (2)

Clinical Course

- (1) • Referred to the Toronto Centre for Liver Disease at the University Health Network due to a persistent elevation of liver enzymes in a cholestatic pattern.
- (2) • Referred to Hepatology: Abdominal Ultrasound and MRI showed results consistent with recurrent pyogenic cholangitis
• Referred to the Tropical Disease Unit
- (3) • Tropical Medicine unit: intermittent right upper quadrant pain over 2–3 years, worsened by fatty meals, and unintentional weight loss of 6 kilograms over 6 months.
• No jaundice, fever, pruritus, nausea, vomiting, diarrhea, constipation and dyspepsia.
- (4) • Empiric treatment with praziquantel (25 mg/kg TID × 2 days) initiated given imaging findings, exposure history of frequent raw fish consumption in the Philippines, and persistent symptoms
- (5) • 2 months later: Liver enzymes showed partial improvement.
• Repeat MRI showed persistent intrahepatic stones, moderate biliary dilatation, hepatic atrophy, and microabscesses. No malignancy.

Management

- Given the suggestive imaging, exposure history, and negative stool results, *empiric praziquantel* (25 mg/kg TID × 2 days) was initiated.
- Two months later: marked symptomatic improvement, normalization trend in liver enzymes, and decreased inflammatory changes on repeat MRI.
- Treatment was well-tolerated with transient dizziness only.
- Continued hepatology follow-up arranged for surveillance of chronic biliary changes.

Discussion

- *Clonorchiasis* is often missed in non-endemic settings due to non-specific findings and limited diagnostic access.
- Stool microscopy sensitivity can fall below 30% in chronic or low-burden infections.
- Imaging features (intrahepatic duct dilation, pigmented stones, lobar atrophy) are often the most reliable diagnostic clues.
- Empiric treatment is justified in high-suspicion cases to prevent long-term complications including cholangiocarcinoma.

Learning Points

- Recurrent pyogenic cholangitis may signal chronic *Clonorchis sinensis* infection **even with negative stool tests**.
- Clinical suspicion should be heightened in **migrants from endemic areas presenting with biliary disease**.
- Empiric praziquantel therapy is **safe, effective**, and may **prevent irreversible hepatobiliary damage**.
- Long-term surveillance is warranted due to **increased lifetime risk of cholangiocarcinoma**.

References

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