

Coil migration into the common bile duct as a cause of cholangitis

Bile leakage is among the most common complications of cholecystectomy. This complication is successfully treated by either endoscopic or percutaneous interventions [1–4]. We report a case of cholangitis secondary to migration of coils that were placed percutaneously into the cystic duct in a previous procedure for high-flow bile leakage after open cholecystectomy 5 years ago.

An 84-year-old man was admitted to the emergency service complaining of right upper quadrant pain, nausea and vomiting. On admission he had shaking chills and fever with a heart rate of 108 beats/minute. He was deeply jaundiced and his right upper quadrant was tender to palpation. His white blood cell count was $22.8 \times 10^3/\mu\text{L}$, with total bilirubin of 9.68 mg/dL (reference range: 0.2–1.2 mg/dL), direct bilirubin 6.65 mg/dL (0–0.3), alkaline phosphatase 2166 U/L (15–270), γ -glutamyl transferase 578 U/L (8–61), and alanine transaminase 53 U/L (0–41). Ultrasound scan showed dilation of the common bile duct (CBD) with multiple obstructing stones. Endoscopic retrograde cholangiopancreatography was then performed. Cholangiography films showed stones and multiple coils within the distal CBD (Figs. 1, 2).

Afterwards sphincterotomy was performed, multiple stones and coils were extracted with a retrieval balloon and basket catheter (Figs. 3, 4).

Migration of surgical clips into the CBD is rare, but many cases have been reported since 1979 [5]. In addition to these cases of surgical clip migration, after the case reported by Sandroussi et al. [3] this is the second reported case of CBD obstruction with cholangitis secondary to migration of coils inserted percutaneously into the cystic duct. We think this kind of complication will increase over time with the widespread adoption of this procedure. Combined treatment with *N*-butyl cyanoacrylate injection and microcoil embolization may be a better treatment option in order to avoid complications due to migration. This case also has implications regarding the long-term safety of percutaneous microcoil embolization.

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Fig. 1 Endoscopic retrograde cholangiogram demonstrating multiple coils and stones within the distal common bile duct.



Fig. 2 Endoscopic retrograde cholangiogram demonstrating coils being extracted with a basket catheter.

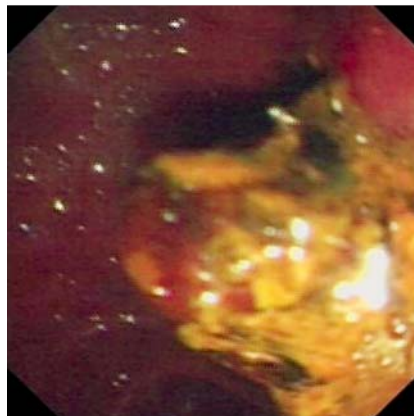


Fig. 3 Endoscopic image of coils and bile sludge being extracted with a basket catheter.



Fig. 4 Endoscopic image of coils within the basket catheter.

Competing interests: None

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