

Successful endoscopic therapy of intrahepatic bile leaks following hepatic gunshot injury: Report of two cases

UCTN

There are virtually no reports of gunshot wounds causing intrahepatic bile duct leaks, although extrahepatic bile duct injuries following hepatic gunshot wounds are common [1–4]. We present two cases of successful endoscopic management in patients with delayed presentation of intrahepatic bile leaks resulting from hepatic gunshot injuries.

Patient 1. A 28-year-old man sustained a gunshot wound to the mid-epigastrium. Laparotomy revealed through-and-through liver injury, treated surgically. The patient did well until postoperative day 11 when bilious fluid was noted to exit the wound. Computed tomography (CT) scan revealed a perihepatic fluid collection and a biliary-cutaneous fistula.

Endoscopic retrograde cholangiopancreatography (ERCP) revealed a large bile leakage from a left intrahepatic bile duct (Figure 1). A biliary sphincterotomy was performed and a 10 Fr × 7 cm plastic biliary stent was placed. ERCP at 6 weeks later showed complete closure of the bile duct with a normal cholangiogram (Figure 2).

Patient 2. A 25-year-old man sustained a gunshot wound to the right upper quadrant with a penetrating liver injury and underwent operative repair.

On postoperative day 18, the patient developed fever and pain, and was found on CT scan to have a perihepatic fluid collection. ERCP demonstrated a small left intrahepatic bile duct leak. A biliary sphincterotomy was performed and a 10 Fr × 7 cm biliary stent was placed. At 4 weeks later, ERCP showed resolution of the leak and no evidence of stricture.

Conclusion. Although poorly described in the literature, intrahepatic bile leaks can occur as a result of hepatic gunshot wounds, and their manifestation may be delayed compared with leaks induced by laparoscopic cholecystectomy or by extrahepatic injury caused by gunshot wounds [5]. This may be due to early tamponade



Figure 1 Initial cholangiogram from patient 1, demonstrating a leak from a small rightward intrahepatic branch from the left hepatic duct (arrow). Note the bullet visible at the top of the image.



Figure 2 Cholangiogram obtained from patient 1, at 6 weeks later, showing closure of the leak and normal biliary anatomy.

of these leaks secondary to edema. As swelling abates, active leakage can be seen with associated fluid collections. These intrahepatic injuries respond to endoscopic therapy.

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