

Endoscopic ultrasound-guided bile duct reconstruction after complete section following a car crash in a 5-year-old child with complete situs inversus



Bile duct complete section is a rare adverse event of abdominal traumatism that can appear on the upper border of the pancreas [1,2]. We report here the case of a 5-year-old girl, with a complete situs inversus, who underwent a car crash with several injuries, including a complete section of the bile duct at the junction with the pancreas. We first attempted an endoscopic retrograde cholangiography approach (ERCP) by inverting the patient and physician position. It was technically difficult because of the inverted anatomy and the guidewire systematically went to the pancreatic duct. A surgical drain was placed in the gallbladder to reduce bile flow, but unfortunately the abdominal collection did not reduce. It finally grew to a large 15-cm collection with both pancreatic and bile juice when analyzed.

After multidisciplinary team discussion, in order to avoid new surgery, an EUS approach was proposed to reconstruct the bile duct as previously described to access excluded fistulas [3]. The entire procedure was done with the patient placed in the conventional supine position, with the physician positioned on the patient's left side but in an inverted mirror image owing to the situs inversus (► **Video 1**). We used the gallbladder drain to fill the bile duct with a mix of water and contrast, and we punctured it using a 19G needle targeting the bubbles in the flow in the area of the leakage. A 0.025-inch guidewire was then introduced and a 4-cm self-expandable metal-



Video 1 Endoscopic ultrasound-guided bile duct reconstruction for a complete traumatic section in a child with situs inversus.

lic stent 6 mm in diameter was placed between the duodenal bulb and the main bile duct. No leakage remained after opacification. Second, a conventional cystogastrostomy was done on the abdominal collection.

The two drains allowed a complete resolution of the leakage.

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Competing interests

Clara Yzet received fees from AbbVie, Takeda, Galapagos, Jansen, Pfizer.

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