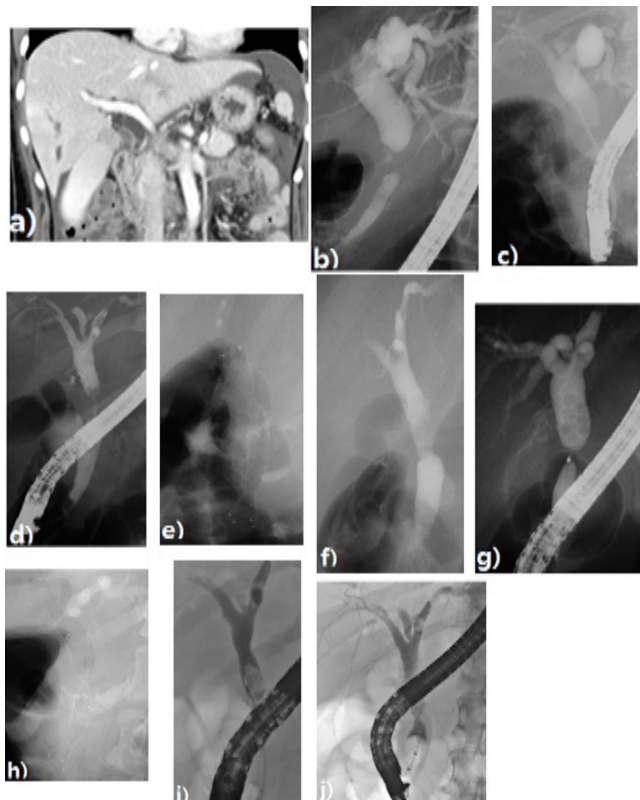


## Refractory suprapancreatic biliary stricture after blunt abdominal trauma from a car accident

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Suprapancreatic biliary stricture after trauma is extremely rare. Several case series reported ERCP was the first-line treatment, and the success rate was high. Here, we report a patient with refractory suprapancreatic biliary stricture who eventually underwent hepaticojejunostomy. A 58-year-old female was referred from the outside hospital because she presented with jaundice one month after a car accident. Her epigastric area was injured by the impact of the steering wheel. She had been treated for hemoperitoneum and liver laceration conservatively at the outside hospital. Her laboratory results at the onset of jaundice showed total bilirubin 12.5 mg/dl, AST/ALT 217/104, alkaline phosphatase 780 U/L,  $\gamma$ -GT 780 IU/L. Abdominal CT showed intra- and extrahepatic bile duct dilatation with abrupt narrowing of the common bile duct (Fig. 1 a). ERCP showed severe supra-pancreatic stricture (b), and a 7Fr plastic stent was placed initially across the stricture (c). Follow-up ERCP after two months showed no improvement of biliary stricture so the upsized plastic stent (10 Fr) was placed into CBD. But suprapancreatic biliary stricture was not resolved on follow-up ERCP after 3 months (d). A fully covered metal stent was placed (e). Follow-up ERCP after 4 months showed improvement of the stricture (f). A metal stent was placed twice thereafter, and the duration of each stent placement was 4-6 months. We decided to remove the metal stent because the biliary stricture was quite improved. However, the patient developed jaundice 3 months after stent removal, and ERCP showed the recurrence of biliary stricture (g). So metal stent was placed again (h). Despite multiple metal stent placement, recurrent CBD stone has developed (i), and biliary stricture was only partially improved (j). We recommended the surgery to the patient, and hepaticojejunostomy was finally performed. She is uneventful until now for 7 years since the surgery. Contrary to previous reports, endoscopic treatment for suprapancreatic biliary stricture due to blunt abdominal trauma may fail to resolve the biliary stricture in the long term. In that case, surgery can be an alternative and definite treatment.



**Figure 1.**

a) Hemoperitoneum and suprapancreatic biliary stricture were observed on CT after blunt abdominal trauma b) Severe supra-pancreatic biliary stricture was noted on ERCP c) Plastic biliary stent (7 Fr) is placed across the stricture d) The biliary stricture remained 6 months after plastic stent insertion e) Metal stent was placed into the CBD f) Biliary stricture was improved on the follow-up ERCP after metal stent insertion. g) Jaundice developed 3 months after metal stent removal and supra-pancreatic biliary stricture has recurred h) Metal stent is reinserted into the CBD i) 11 months after the removal of metal stent, CBD stone has developed j) Balloon-occluded cholangiography showed only partial improvement of biliary stricture