The conventional transpapillary access for biliary drainage in carcinoma of the ampulla of Vater can be difficult due to distortion, ulceration and bleeding of the tumor. Endoscopic choledochoduodenal fistula formation (endoscopic fistulotomy) on the suprapapillary bulge with a needle knife is then an alternative procedure. But endoscopic fistulotomy has complications of bleeding and perforation. Monkemuller et al. reported fewer complications of bleeding and perforation with puncturing technique as compared with needle knife fistulotomy in endoscopic drainage of pancreatic fluid collection. Endoscopic fistulotomy with puncturing technique using Baron aspiration needle for ulcerative papillary carcinoma, to our knowledge, has not been reported in the English literature.

CASE REPORT

A 60-year-old man with obstructive jaundice due to an ulcerative papillary carcinoma underwent endoscopic retrograde cholangiopancreatography. Owing to the totally destroyed papilla of Vater, access to the biliary tract was impossible. Instead of needle knife fistulotomy, puncturing with an 18-G aspiration needle on the supra-papillary bulge followed by biliary stenting was performed successfully. To our knowledge, this technique has not been reported before in the English literature and probably can have fewer complications of bleeding and perforations produced by needle knife fistulotomy.
duct and a failure of cholangiogram. Owing to the ulceration and bleeding of the papilla of Vater, the conventional transpapillary access for biliary drainage was impossible (Fig. 1A). So endoscopic fistulotomy was performed by puncturing the supra-papillary bulge using a Baron aspiration needle (BAN-18, Wilson-Cook, 18 G and 1.5 cm needle length) (Figs. 1B, 1C, 1D) followed by guide-wire insertion, dilatation with graduated dilator (CGDC-10-7-5 Cook) up to 10 French and insertion of a 10 Fr-sized biliary stent (Figs. 2 and 3). After puncturing with the Baron needle, bile was aspirated, but difficulty with direct insertion of guide wire through the Baron needle was encountered. We then removed the Baron needle, and through the punctured hole, guide wire was inserted via a 2-channel papillotome (Tapertome, Microvasive). There was no complication following this procedure. The report of the endoscopic biopsy of the ulcerative papilla was adenocarcinoma, at least intramucosal type. The total bilirubin dropped from 238 μmol/L to 68 μmol/L in 5 days. The patient received a Whipple operation in National Taiwan University Hospital after discharge from our hospital and is doing well now. The tumor staging was stage I.

**DISCUSSION**

Percutaneous transheptic catheter drainage has more complications and mortality than endoscopic retrograde biliary drainage, so the latter is preferred. The endo-
scopic approach of biliary drainage to ampullary carcinoma includes transpapillary biliary stenting, endoscopic sphincterotomy with or without stenting, and endoscopic fistulotomy. In cases with distortion, bleeding and ulcerative destruction of the papillary, cannulation of the bile duct can be difficult. Endoscopic sphincterotomy (endoscopic incision of the papilla) can cause serious, even fatal, bleeding complications. Using needle-knife fistulotomy at the suprapapillary bulge, a success rate of 93% (13/14 cases) was obtained in papillary carcinoma, but there was a case of bleeding complication. In a larger series of 74 cases of needle-knife fistulotomy, complications of 6.75% bleeding and 2.7% perforation have been reported. In a comparison of needle knife entry with puncturing technique for endoscopic transmural drainage of pancreatic fluid collection, complications of bleeding and perforation were fewer in the puncturing group, 4.6% vs 15.7%.

In our case, puncturing the supra-papillary bulge with a Baron-18 G needle, bile was seen flowing out of the bile duct. Through the fistulotomy, a guide wire was introduced into the bile duct, followed by dilatation and stent insertion. The limitation will be if the papillary tumor has invaded deep inside the distal common bile duct without a supra-papillary bulge, but the same problem will also be encountered with needle knife fistulotomy method. Based on Monkemuller et al report, our puncturing technique with needle may produce fewer complications of perforation and bleeding as encountered with needle-knife fistulotomy, but needs more cases for randomized study. So it is expected to be an alternative technique with less complications for endoscopic biliary drainage in patients with difficult-to-cannulate papillary carcinoma.

REFERENCES