

# [Hepaticojejunostomy then placed between the wall of the](https://assignbuster.com/hepaticojejunostomy-then-placed-between-the-wall-of-the/)

Hepaticojejunostomystricture development after hepaticojejunostomy for biliary diseases is one ofthe difficult and serious complications of biliary surgery. Untreated strictureis associated with jaundice, recurrent cholangitis, intrahepatic stone formation, and end with secondary biliary cirrhosis which may need liver transplantation.

Case reports: sevenpatients presented to our hepatobiliary unit at King Hussein Medical Centerwith benign hepaticojejunostomy stricture between January 2016 and May 2017, twopatient following choledochal cyst excision and five patients following commonbile duct injury. The main symptoms was jaundice followed by cholangitis. Patients were admitted and managed with intravenous antibiotics and intravenousfluid. All patients underwent transabdominal ultrasonography and MRCP. The sevenpatients initially underwent an endoscopic retrograde cholangiography usingdouble-balloon enteroscope, all was unsuccessful due to the sharp angle betweenthe jujenal limb and the biliary tree. Percutaneous transhepatic cholangiogramperformed to all patients and failed to cannulate the stricture after 1-3trials in five patients and due to the presence of intrahepatic stone in twopatients. Surgical intervention was performed and after patients consented tothe new procedure.

During the operation, we performed a 5 cm longitudinalincision at the jujenal limb about 3 cm below the anastomotic edge, thenarrowed anastomosis is cannulated with a 4 or 5 French catheter afterdilatation with a Watson Cheyne dissector with fine probe , an intraoperativecholangiogram performed to delineate the biliary anatomy, two 5-O or 4-OPolydioxanone suture placed at the edges of the catheter at 9 and 3 O’clockposition, an incision made in between at 12 O’clock for 3-5 mm with tractionapplied on the lateral sutures, several stitches then placed between the wallof the CBD and the jujenal mucosa using the same suture material, the incisionthen further extended in the similar manor until the dilated part of the commonhepatic duct reached and extended for another 5-7 mm with multiple suturesplaced every 2-3 mm, extension at the left duct needed in one case for around 1cm because of the extension of the stricture to confluence of the bile ducts. Biopsy isalways taken from the incision site by scalpel and send for frozen section torole out malignancy. Jujenal wallclosed in two layers and the abdomen is closed without drains. The sevenpatients postoperative course were uneventful, and discharged home at the thirdday postoperative, they were followed with liver enzymes and transabdominalultrasonography at 2 weeks, 3 months and every six months for 18 months andshows normal liver enzymes and patent anastomosis. Discussionand conclusionBilioenteric bypass surgery is performed toestablish the biliary flow in patients with benign and malignant biliarydiseases involving extrahepatic biliary tract and include operative andtraumatic biliary tree injuries, obstruction and congenital anomalies.

The mostcommon causes of extrahepatic biliary obstruction is chronicpancreatitis, cholelithiasis and choledocholithiasis, primary sclerosingcholangitis, Radiation-induced strictures , drug inducedstricture, biliary infections, periampullary tumors and carcinoma of head ofpancreas.(1) Several bilioenteric bypass procedures availabledepending on the pancreaticobiliary pathology, however, Roux-en-Y Hepaticojejunostomyor choledochojujenostomy are considered as the procedures of choice. (2, 3, 4)Bilioentericstricture post bilioenteric bypassprocedures is a rare complication , however when biliary stricture occurand left untreated it result in a significant morbidity and mortality secondaryto recurrent cholangitis, liver abscesses , liver cirrhosis, portalhypertension and hepatic failure.

Theincidence of Bilioenteric stricture range from 4-10 % according to severalstudies. (5, 6, 8)Bilioentericstricture development related to many factors such as small duct at the time ofbypass, technical issues, bile leak, infection (abscess formation or recurrentcholangitis), and ischemic insult to the bile duct. (7)The initial management in most of the cases isendoscopic and percutaneous endobiliary balloon dilatation with stenting of thestricture site. Surgical intervention is reserved for failedendoscopic or radiological approaches.

The advantage of this technique is itssimplicity, which eliminate the need for hilar dissection or dissection throughthe tense fibrosis that may occur from previous surgery or recurrent cholangitis, also in the cases of portal hypertension with extensive varices that  may result in sever bleeding secondary tovariceal or portal vascular injury during redo hepaticojujenostomy. Anotheradvantage of this procedure is that it can be applied to long strictures andstrictures close to the confluence, with preservation of the biliary length incase of recurrence of the stricture, also theoretically speaking the bloodsupply to the bile duct remain intact as the incision made at the anterior aspectof the duct which may result in less blood compromise to the biliary system. In conclusion, this new simple procedure and itspromising result may replace a more sophisticated procedures for the managementof benign hepaticojejunostomy strictures. Further studies consisting of largepatient populations are needed to reach a definite conclusion.