

ERCP in patients with Jaboulay pyloroplasty

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To the Editor,

Endoscopic retrograde cholangiopancreatography (ERCP) is successfully performed in a substantial percent of patients with surgically altered gastrointestinal and/or bilio-pancreatic anatomy using an appropriate endoscope and other instruments (1,2). Billroth II gastroenterostomy, Roux-en-Y hepaticojejunostomy, Whipple procedure, gastrojejunal bypass are the most commonly performed examples (Table 1). Access to the papilla must be through an afferent loop using a duodenoscope, gastro-scope, colonoscope, pediatric colonoscope or enteroscope (including balloon enteroscope) (1-7). Jaboulay pyloroplasty (JP) is a side-to-side antroduodenostomy anastomosis aimed to relieve gastric outlet obstruction that is infrequently performed currently (Fig. 1) (8). To our knowledge there is no data in the literature regarding the ERCP interventions in patients with JP. Herein we present our ERCP experience in patients with JP.

We had 87 patients with surgically altered gastrointestinal anatomy among 7426 ERCP procedures performed in our endoscopy unit within 4 years [10 with Billroth I anastomosis, 50 with Billroth II anastomosis (6 of them had Braun anastomosis), 23 with Roux-en-Y anastomosis and 4 patients (4.5%) with JP. JP was diagnosed by demonstration of an anastomosis close to the pylorus on greater curvature of the stomach and by reaching the duodenum upon passing through (Fig. 2). Since biliary anatomy was preserved in all of the patients diagnostic and therapeutic procedures were carried out according to the widely accepted, pre-defined standard methods.

Demographic data of the patients and interventions performed in 4 patients with JP are summarized in Table 2. Reasons for JP were peptic ulcer related gastric outlet obstruction in 3 patients and malignant antral tumor in one patient. All patients had apical stenosis at the time of intervention, which made the access to the papilla through pylorus impossible. Endoscope could not be advanced to papilla in one patient with common bile duct stones because of the angulation of scope passing through the anastomosis. Biliary tree could be selectively cannulized in the remaining 3 patients passing through the anastomosis. Biliary sphincterotomy was performed in all of these 3 patients. Two patients had common bile duct stones and papillary dilatation was performed in one of them. All of the biliary stones were successfully cleared. Third patient had a malignant stricture of distal

Table 1. — Surgeries altering gastrointestinal and/or bilio-pancreatic anatomy

Upper GI anatomy altered, pancreatico-biliary anatomy preserved
Billroth I and II gastroenterostomy
Simple gastroenterostomy
Side-to-side antroduodenostomy (Jaboulay procedure)
Roux-en-Y gastrojejunostomy
Gastric bypass (for obesity)
Both upper GI anatomy and pancreatico-biliary anatomies altered
Roux-en-Y hepaticojejunostomy
Whipple (classical or pylorus preserved)

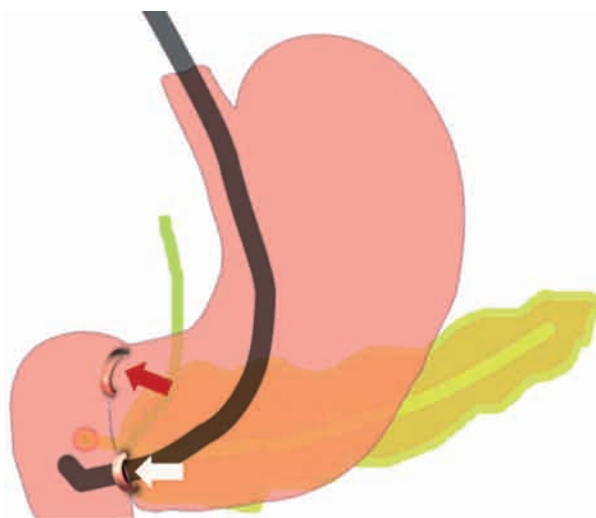


Fig. 1. — Jaboulay procedure (side-to-side antroduodenostomy) and endoscopic position during ERCP. Red arrow indicates pylorus, white arrow indicates antroduodenostomy anastomosis.

bile duct which was bypassed by means of stent application. There were no intervention related complications encountered in any of the patients.

JP was first defined in 1892. The anastomosis is performed between the healthy tissue of gastric antrum and duodenum away from ulcer bed. Although the method is

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Submission date: 15/11/2011
Acceptance date: 22/01/2012

Table 2. — Demographic features of the patients and therapeutic interventions performed

Patient #	1	2	3*	4
Age	71	65	55	61
Gender	Male	Male	Female	Male
Presenting symptom	Jaundice	Biliary pain	Biliary pain	Biliary pain
Route of access to papillae	Anastomosis	Anastomosis	Anastomosis	Anastomosis
Diagnosis	Malignant stricture	CBD stone	Unknown	CBD stone
Interventions	Sphincterotomy, stenting	Sphincterotomy, papillary dilatation, stone extraction	None	Sphincterotomy, stone extraction

* Unsuccessful ERCP.

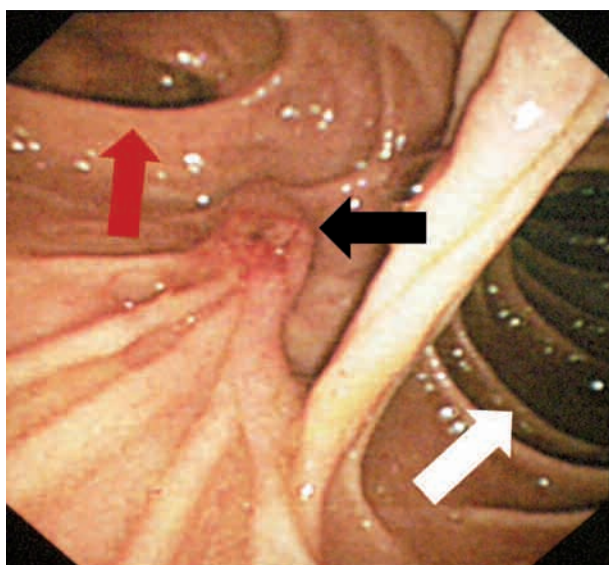


Fig. 2. — Papilla (black arrow), duodenal bulb (red arrow) and third segment of duodenum (white arrow) in a patient whose duodenum is visualized through the gastroduodenal anastomosis.

simple to perform in selected patients, it is infrequently preferred in patients with gastric outlet obstruction. JP is not an actual pyloroplasty in fact since the pylorus is not incised (8).

We did not encounter any difficulties in approaching to the papilla in patients with JP except one patient in whom angulation of the instrument when passing through the anastomosis hindered the access to the papilla. In patients whose papilla can be successfully approached by using a suitable equipment, difficulties can be encountered in cannulation of pancreatic or biliary tract, sphincterotomy and other therapeutic interventions. This may be related to the altered anatomy

(inverted), working with longer endoscopes, decreased diameter of the channels of scopes, and lack of equipment (1,2). In patients with JP, since the bilio-pancreatic anatomy is not altered such complexities are not encountered. Therefore standard ERCP methods were effective in patients whose papilla could be reached (Table 2). Afferent loop perforation, which is an apprehended complication (3-5) of endoscopic procedures in patients with surgically altered anatomy, was not encountered in any of our patients with JP.

In summary, it is mostly possible and safe to approach to papilla and perform therapeutic ERCP interventions in patients with JP.

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