PERCUTANEOUS BALLOON DILATATION WITH LONG-TERM TRANSHEPATIC BILIARY DRAINAGE IN TREATMENT OF BENIGN BILIOENTERIC STRICURE

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OBJECTIVES
Benign bilioenteric strictures occur in 15 to 30% of patients within 3 years after hepaticojejunostomy. This pathology constitutes a serious problem, potentially leading to chronic cholangitis, biliary cirrhosis and liver failure in cases of inadequate treatment. The aim of present study is to determine the short-term effectiveness of percutaneous balloon dilatation (BD) in benign anastomotic strictures treatment.

MATERIALS AND METHODS
From 2015 to 2018 68 patients with benign bilioenteric anastomosis (BEA) strictures were selected for BD and transhepatic biliary drainage. In 41 cases (58,7%) BEA was formed after iatrogenic ducts trauma during cholecystectomy, in others - after bile duct resection for biliary and pancreatic malignancy. The first step of treatment included percutaneous approach with the first balloon dilatation followed by internal-external drainage placing. Repeated BDs with transhepatic drainages exchanges were performed at 2,5-3 month intervals until no balloon «waists» were observed on 2 consecutive sessions.

At the first step of treatment, it was unable to pass the stricture with a guidewire in seven patients, due to complete bile ducts occlusion. In five of them, a neo-bilioenteric anastomosis was created using fluoroscopy control (in three patients) or antegrade percutaneous cholangioscopy (in two patients), which in one case was supplemented with intraductal endo-ultrasound. Surgery was applied in 2 cases, when we were unable to restore bile passage into jejunum by minimally invasive procedures. All patients with neo-BEA further underwent BD course with drainages exchanges.

Except routine diagnostic methods in follow-up period we used hepatobiliary scintigraphy, that provided us to evaluate anastomosis patency and radioactive tracer passage in dynamic.

RESULTS
A total of 68 patients (48 female, 20 male; mean age - 53) had 320 surgical procedure (74 PTBD and 246 BD with transhepatic drainage change). Overall morbidity rate was 21% without mortality. Short-term complications that required minimally surgical interventions occurred in 6 patients. Among them - drainage migration, tube site infection, abdominal abscess and bilothorax.

The transhepatic drainage tubes were successfully removed in 35 (51%) patients. The median follow-up was 13.7 month (0-41 mo). The recurrent biliary stricture was noticed in one patient (1,5%) at 3rd year after treatment was completed. In three patients the recurrence of oncological disease was observed.

CONCLUSIONS
According to our initial experience, percutaneous BD with long-term transhepatic drainage is a relevant and effective treatment approach in patients with BEA stricture. In cases of stricture recanalization impossibility, percutaneous neo-BEA forming technique can be used as an alternative to surgical intervention. Further long-term results will be evaluated in order to clarify the treatment efficacy.