Efficacy of prophylactic gastrojejunal bypass in preventing gastric outlet obstruction in unresectable periampullary cancer

J. Eden, S. Sanjeevi, A. Noorani, J. Blomberg, J. Tsai, M. Del Chiaro, L. Lundell, C. Ansorge

- Prophylactic gastrojejunal bypass, usually part of a double bypass, is associated with considerable morbidity and mortality.
- The present study failed to demonstrate acceptable results for treatment and prevention of gastric outlet obstruction symptoms.
- Gastric outlet obstruction develops in only 10-20% of patients with periampullary cancer, thus a wait-and-see approach and less invasive on-demand strategies may be advisable.

Up to 33% of patients with preoperatively considered resectable periampullary cancer are deemed unresectable at laparotomy due to unexpected locally advanced or metastasized disease. The conversion from curative to palliative intent usually leads to the construction of a concomitant prophylactic gastrojejunal bypass (PGJB) as part of a double bypass to prevent eventual duodenal / gastric outlet obstruction (GOO) symptoms that may occur with further tumour progression. How PGJB subsequently affects the adequacy of oral intake in a palliative setting has not been fully clarified.

The aim of the current study was to investigate the effect of PGJB on GOO symptoms using established scoring systems. Observational study on patients with periampullary adenocarcinoma found to be unresectable at exploratory laparotomy between 2004 and 2014. The patients were grouped according to the palliative surgical management they had received into PGJB or exploration (EXP) alone. Data on oral intake before operation, at discharge and at follow-up was retrieved from the patient’s medical records and classified according to the (GOO) scoring system. Postoperative complications were classified according to Dindo-Clavien and delayed gastric emptying (DGE) according to the ISGPS consensus definition.

A hundred-eight patients were included, 94 underwent PGJB (14 EXP). The groups were comparable regarding demographical data and, except for severe complications (17% PGJB vs 7% EXP), had similar postoperative outcomes and long-term survival. Clinically significant DGE occurred in 18% of the PGJB group and in 7.7% of the EXP group. Length of hospital stay was longer in the PGJB group (9 vs 6 days). Improved rates of oral intake could not be demonstrated for PGJB when compared to EXP.

Regarding prevention of GOO symptoms, 32% of the non-symptomatic patients developed a temporarily decreased and 7% a prolonged decrease of oral intake. At a median follow-up time of 47 days, 73% of patients had regained full oral intake; however, only 49% had full oral intake at both discharge and follow-up after PGJB compared to 73% with full oral intake at discharge and follow-up after EXP.