

## Abstract

### Gastrostomy, A New Way of Dealing with Delayed Gastric Emptying after Pancreatoduodenectomy

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#### ABSTRACT

Delayed gastric emptying (DGE) is a common postoperative complication following pancreaticoduodenectomy (PD) that impedes not only the adjuvant therapy of the malnourished patient with pancreatic cancer but it increases also the length of hospitalization. The International Study Group of Pancreatic Surgery (ISGPS) defined DGE as the inability to return to a standard diet by the end of the first postoperative week. Categories of A, B, and C have been established considering the inability to tolerate a solid diet by postoperative days 7, 14, and 21 or requirement or reinsertion of a nasogastric tube after the 3, 7 and 14 postoperative days. Various causes and possible triggers have been proposed to influence the occurrence of DGE. These include acute changes in plasma gastrointestinal hormone (specifically motilin) levels due to duodenal resection, ischemia and congestion of the pylorus and antrum secondary to vascular compromise, denervation of the stomach and duodenum due to radical resection of the surrounding tissue with subsequent pylorospasm. Gastroparesis secondary to postoperative intra-abdominal complications is often, but not always, associated with pancreatic fistula, peripancreatic collections, or intraabdominal abscess). Other functional abnormalities include pancreatic fibrosis, preoperative cholangitis, postoperative pancreatitis, alternation of the endocrinologic milieu and perioperative blood transfusion. Furthermore, the performance of classic Whipple versus pylorus-preserving pancreatoduodenectomy (PPPD), antecolic versus retrocolic gastric/duodenal reconstruction, hand-sewn versus stapled duodenojejunostomy, Billroth I versus II reconstruction, pancreaticogastrostomy versus pancreaticojejunostomy, and other operative factors that may impact the rate of DGE have been investigated. Finally, yet importantly, technical errors like torsion or angulation of the reconstructed alimentary tract causing DGE are preventable. We added a simple step in completing 26 consecutive pancreatic head resections, with 26 patients receiving randomly a Witzel gastrostomy with gastropexy intraoperatively, which seems to alleviate DGE and has never been highlighted before.

**Keywords:** Delayed gastric emptying, Gastrostomy, Pancreatoduodenectomy

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