

Initial Experiences of an Enhanced Recovery Programme After Pancreaticoduodenectomy

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Context Enhanced recovery after surgery (ERAS) programmes decrease morbidity and duration of stay after colorectal surgery. There is little information about their role in complex procedures, such as pancreaticoduodenectomy. **Objective** To evaluate the safety, feasibility, and the short-term outcomes of enhanced recovery after pancreaticoduodenectomy (ERAPD) programme. **Methods** Beginning in January 2013 a multidisciplinary protocol of ERAPD was developed at our institution. In all the cases, the reconstruction after pancreaticoduodenectomy included duct-to-mucosa pancreaticojejunostomy. This protocol included near-zero fluid balance, mid-thoracic epidural analgesia, removal of nasogastric tube before the extubation, liquid diet in post-operative day 1 and solid diet in post-operative day 2, as well as early drains removal according to amylase value in drains (AVD). Overall, 29 patients were included in the ERAPD group (ERAPD+) and were compared with other 29 patients (ERAPD-) previously treated by the same surgical team. **Results** The two groups

were similar with respect to age, gender, diagnosis, and operative time. There were no significant differences in the incidence of post-operative complications (55% for ERAPD+ versus 52% for ERAPD-, $P=0.792$). The rate of pancreatic fistula was 14% in the ERAPD+ group compared with 28% in the ERAPD- group ($P=0.195$). In younger patients (age <70 years), ERAPD+ patients had a lower risk of pancreatic fistula compared with ERAPD- patients (6% versus 33%, $P=0.042$). The incidence of delayed gastric emptying syndrome was 10% in the ERAPD+ group compared with 7% in the ERAPD- group. The overall length of hospital stay was 12 days in both the groups ($P=1.000$). **Conclusion** The implementation of an ERAS programme after pancreaticoduodenectomy was safe and feasible. This protocol was associated with a tendency toward a lower incidence of pancreatic fistula although not statistically significant. ERAPD+ patients younger than 70 years have the best results in terms of reduction of pancreatic fistula rate.