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.