



Invited Commentary

An invited commentary on: “Robotic pancreaticoduodenectomy in elderly and young patients: A retrospective cohort study” (International Journal of Surgery 2020; 81:61–65)


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Dear Editor,

Minimally invasive pancreaticoduodenectomy (MIPD) is being performed with increasing frequency for pancreatic cancer, but the most oncologically efficacious surgical platform as to be whether robotic or laparoscopic is yet to be determined. It has been shown that after a steep learning curve robotic pancreaticoduodenectomy (RPD) seems to be safe and feasible, mostly in selected cases, in surgical treatment for both malignant and benign diseases of pancreatic head and periampullary region [1]. The main question after confirmation of both feasibility and safety would be to evaluate the real benefits for patients in need of PD. Generally, minimally invasive surgery aims for a quick recovery because of less surgical stress and trauma, which might not be the case considering PD, after which resumption of gastrointestinal function and healing of various anastomoses are the main factors in determining the speed of recovery, but not so much influenced by postoperative pain and immobility. Prevention of delayed gastric emptying might also be a significant factor to accelerate recovery. So far, very few comparative studies looked into details of these issues, but focused predominantly on safety and efficacy, with some on oncological outcomes of MIPD [2].

Although in general publication bias is probably prominently present in most of publications on MIPD, it becomes more and more clear that laparoscopic and robotic PD are valid options in selected cases, and severity of complications seems not that much different. Equivalency in surgical radicality, including R0/R1 resection, and number of harvested lymph nodes between the two techniques is comparable in some series, but remains certainly still a matter of debate.

Oncologically, the patient's prognosis is mainly dependent on tumor biology, rather than the type of surgical technique. An uncomplicated recovery from surgery is important to start adjuvant therapy without delay, at an adequate dose and without interruption. Despite that, it remains relatively poor with only around 40% 5y survival in most series for both open and minimally invasive PD [3].

As previously shown, PD is nowadays also feasible and safe in elderly patients with no significant differences in surgical radicality and

mortality rates. Some series however, showed an increased morbidity rate, mainly consisting of cardiopulmonary events [4].

Liu et al. [5] performed a retrospective analysis of 431 robotic PD patients for both benign, borderline malignant and malignant lesions during an 18 months period. They looked into detail as to whether robotic PD can be performed safely in the elderly above 75 years of age, and showed no differences in comparison with younger patients for peri-operative mortality, 90-day readmission and mortality rates, but a significantly increased in length of hospital stay. Cardiopulmonary complications were also significantly more frequent as might be expected in this older aged patients. Of course, the key question remains whether the use of the robot has any added value for elderly patients. Thus, selection bias should be minimal and a comparison between open and robotic surgery should be performed prospectively for this group of older and frail patients.

Provenance and peer review

Invited Commentary, internally reviewed.

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