

Surgical approaches for laparoscopic pancreatectomy: Multidimensional field of vision

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Objective: There are multiple choices of surgical approaches in laparoscopic pancreatectomy such as trans-gastrocolic ligament, trans-hepatogastric ligament and trans-transverse mesocolon. The recently reported retroperitoneoscopic pancreatectomy had enriched the options. No crosswise comparisons have been made among the approaches while it is a critical surgical issue to choose a well-exposed one according to the characteristics of the pancreatic lesions. This article tries to explain the reason for the choice of different approach based on our laparoscopic pancreatic experience. Advantages and disadvantages of each option will be commented.

Methods: Approval was obtained from the Institutional Review Board.

67 patients received the laparoscopic pancreatectomies from Jan 2010 to Mar 2013 which included 17 cases of robotic assisted distal pancreatectomies (9 cases were spleen-preserved), 9 cases of retroperitoneoscopic pancreatectomies, 41 cases of laparoscopic pancreatectomies (12 cases were trans-transverse mesocolon, 24 cases were trans-gastrocolic ligament, 5 cases used the both). Subgroup was divided based on the characteristics of lesions and the type of surgery. Operative time, blood loss, conversion to laparotomy, complications, LOS (length of stay) were compared in the subgroup. Approval was obtained from the Institutional Review Board.

Results: All the 17 cases of robotic assisted distal pancreatectomies used the both approaches. 2 cases converted to laparotomy and 1 case of laparoscopic second-look surgery was performed for the postoperative bleeding. There have been a significant difference in the characteristics of lesions and the type of surgery among the subgroup. The both approaches were used at the same time in the patients with bigger lesions (>2.5 cm), spleen-preserved and most laparoscopic distal pancreatectomies. The single approach was used in patient with smaller lesion. The preferred approach should be chosen based on the MRI before the operation. News approach should be added while single approach was not exposed well enough. Multiple approaches have no clinical influence significantly while the potential risk such as intra-abdominal adhesions are still possible.

Conclusions: Multiple surgical approaches have enriched the options for the laparoscopic pancreatic surgery. The choice should be based on the volume of the lesions and the type of the surgery to expose well enough and to reduce the unnecessary dissection. Our experience shows that there is no significant influence on the hospital stay of the patients. Single approach can be used safely after imaging tests prior to the operation. The indications and limitation of each approach should be aware and practiced skillfully, which is the basic requirement for the laparoscopic surgery.

Biography

Liu Rong has completed his Ph.D. at the age of 31 years from the second military medical university. He is the director of Department of Surgical Oncology, Chinese People's Liberation Army (PLA) General Hospital. He has published more than 15 papers in reputed journals and serving as an editorial board member of reputed.

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