Asian Journal of Surgery (2019) 42, 650–652

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LETTER TO EDITOR

Pancreatic tail and spleen "shape frozen" causes difficulty in Splenectomy — Application of the pancreatic body suspended blocking hilus of spleen method

Dear Editor,

We recently read Dorota Radkowiaka et al Surgery of the article published in the International Journal "20 years' experience with laparoscopic splenectomy. Single center outcomes of a cohort study of 500 cases". The achievement authors from the 2nd Department of General Surgery, Jagiellonian University Medical College, Poland[1] introduced their experience in spleen resection. At the beginning of their all operations, transection of gastro-splenic ligament and short gastric vessels with various energy devices was performed. This was followed by extensive lateral mobilization of the spleen. At the beginning of their experience they used in all cases the technique referred to as "vessels first".[2] Later this approach was used only for patients with the particularly large caliber of splenic vessels, i.e. splenomegaly or portal hypertension. In this technique, the main trunks of the splenic artery and vein were identified at the level of the pancreatic body/tail, isolated, clipped and transected. Then, the entire splenic hilum, including branches of all vessels, perivascular fat and lymphatic tissue, was dissected away in one block from the pancreatic tail and removed together with the spleen with no need for the use of a stapler. We believe that their experience is very valuable and practical. To date, because of individual differences in patients, doctors' technical level and clinical experience not alike, occasionally surgical problems come during spleen resection, with adhesions and bleeding being more common. Therefore, it is necessary to find ways to break through such problems. We hold that the Pancreatic body suspended blocking hilus of spleen method is a good way to solve such puzzle.

Preparation for routine laparoscopic surgery, and using three holes method. First open the gastrocolic ligament, in this case you will found that the spleen and the surrounding tissues such as the pancreas and diaphragm are very sticky, especially the spleen and the tail of the pancreas are "frozen like". At this time, direct blunt dissection is not advisable. On the one hand, it is difficult to separate, and on the other hand, it causes bleeding and affects the surgical field; our method is to cut some of the easily dissociated lienocolic ligament and actively explore the abdominal cavity. In principle, find a position that adhesion is relatively light and easy to dissect, in order to find a suitable surgical entry point. Find the splenic artery on the upper edge of the pancreas and ligation block, as the blood supply is blocked, the spleen will gradually shrink; on the one hand, the reduction of the spleen will create more surgical space, on the other hand, it will reduce bleeding and reduce the risk of surgery. Then we need a certain distance from the frozen tissue, note that as much as possible preservation of the pancreas and look relatively less inflammation site, after finding the lower edge of the pancreas open the posterior peritoneum, and separate the loose space behind the pancreas, the tail of the pancreas and the splenic artery and vein are separated together and suspended. We call this "the Pancreatic body suspended blocking hilus of spleen method" (Fig. 1), it can establish an effective direction for subsequent operations. At this time, using the Endo-GIA stapler closes off the tail of the pancreas and the splenic artery and vein, application of Endo-GIA stapler can reduce the risk of bleeding and pancreatic leakage.[3] In addition, it is removed to the left along the gap of the posterior abdominal cavity where the tail of the resected pancreas is located, free cut and ligated perisplenic ligaments to the left, cut off the adhesion of the spleen to the abnormal wall and the posterior peritoneum, when it is impossible to separate, the spleen can be quickly removed under blunt dissection or even directly by hand (Because the adhesion of this patient is

https://doi.org/10.1016/j.asjsur.2019.01.011

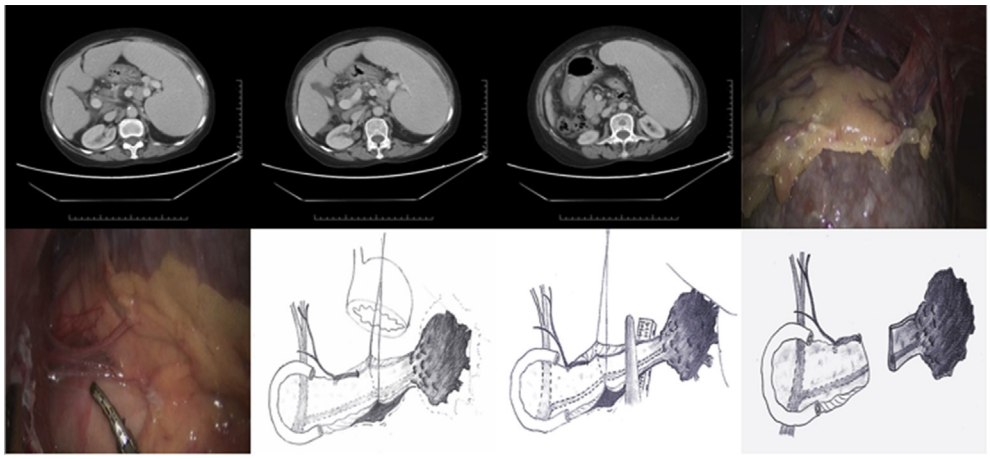

Figure 1 The specific circumstances of the spleen adhesions and the Pancreatic body suspended blocking hilus of spleen method.

very serious, after careful consideration, this patient Immediate conversion to open surgery). Finally, hemostasis, put a flow tube, smoothly complete the operation, the patient recovered well after surgery, and there were no complications such as pancreatic leakage and bleeding.

With the advent of minimally invasive techniques, laparoscopic splenectomy has become the standard method for selective resection of the spleen in most indications compared with open surgery.[4] However, due to individual differences in patients, there are actually some special circumstances, when there is a serious inflammation of the pancreatic tail, and the spleen itself has a serious inflammatory reaction, in the later stage, it will form a serious adhesion package with the surrounding tissue and diaphragma, between times accompanied by regional portal hypertension. In this case, the operation is very hardness and cannot even be removed, and our method is suitable for this. Of course, we need more surgery and experience exchange to improve our preliminary results.

In short, it is especially significant to pay attention to the special circumstances of splenectomy. We hold that application of the Pancreatic body suspended blocking hilus of spleen method is practical for surgeons.

Conflicts of interest

All the authors have no potential conflicts of interest to disclose.

Funding

The study was supported by Major Research Project of Affiliated Hospital of Inner Mongolia Medical University, China (NYFY ZD 003), the Grassland Talents Programs and Grass Talents Innovative Group Programs of Inner Mongolia Autonomous Region, China (Year 2015 and Year 2018), the Natural Science Foundation of Inner Mongolia, China (2017MS08354) and the Science and Technology Plan Project of Inner Mongolia, China (Year 2017), The Project of Educational and Teaching Reform of Inner Mongolia Medical University, China in 2018 (NYJXGG2018011).

Acknowledgements

We would like to acknowledge with gratitude the contribution of the colleagues of the department of Hepatobiliary, Pancreatic and Splenic Surgery, The Affiliated Hospital of Inner Mongolia Medical University.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.asjsur.2019.01.011.

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10 December 2018