Editorial commentary

Radicality during pancreaticoduodenectomy: focus on Mesopancreas resection

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Introduction

The retropancreatic tissue is commonly called Mesopancreas and is the most frequently invaded margin in case of pancreatic head cancer. The Mesopancreas is constituted by connective tissue, lymphatics, and perineural fibers, its constituency is firm and it is located at the level of the superior mesenteric artery (SMA) which is encircled from its origin from the Aorta to the inferior pancreatic-duodenal arteries (1-4). The thickness of the Mesopancreas it variable and it function of the visceral fat of the patient. Mesopancreas excision with circumferential lymphadenectomy of the SMA has been suggested in case of pancreaticoduodenectomy (PD), in view to increase the R0 resection rate, reduce local recurrences, and improve the long term outcome. Several techniques have been reported in case of open PD to obtain a complete or more appropriately a maximal clearance of the Mesopancreas (5-13). Only, few reports are currently available describing Total Mesopancreas excision (TMpE) for LPD (14-24).

Hereby you we reported an original technique which allow to reach a TMpE independently of its thickness. A step by step video shows the key elements of the procedure.

Step by step approach to laparoscopic total mesopancreas excision (*Video 1*)

The patient is placed in «*French position*»: supine with the legs in abduction. A six trocars techniques is used, including a smoke-suction system (AirSeal). The optical camera its a 3D flexible laparoscope. At the beginning of the operation the surgeon stand in between the legs than the position change according to the stage of the procedure. We used 3D flexible laparoscope. Patient is place d in supine position with legs in abduction. The technique for LPD was standardized (6) and in particular all patients underwent a double purse-string telescoped pancreaticogastrostomy. We combine three different approaches to the SMA: right, left and anterior to achieve TMpE. At the beginning of the operation the SMA is identified at its origin above the left kidney vein, the dissection of the mesopancreas is pursued along the right side of the SMA toward the mesentery as long as possible. Then the SMA is encircled with a vessel loop. The dissection is then continued on is left border of the SMA as following: the Treitz ligament is divided and the vessel loop positioned previously at the origin of SMA is pulled on the left, and now the mesopancreas is separated from left side of the SMA. Finally, the anterior side of SMA is identified on the right border of the portal vein and followed toward its origin completing the TMpE.

Post operative care

Oral intake is started from the 3rd post-operative day (POD) and gradually increased. The amylase concentration in the abdominal drains is measured on POD 1, 3, 5. A post-operative abdominal CT scan is systematically performed from POD 5. Any significative post-operative collection around the pancreaticogastrostomy is drained percutaneously even if clinical silent. Due to the bilateral resection of the celiac plexus, the occurrence of post-

operative persistent diarrhea is a frequent event. It can persist for several weeks (4 to 8 weeks). The main treatment is constituted by oral loperamide at escalating doses, and close follow up of the patient with the assistance of combination a nutritionist to prevent malnutrition till the improvement of diarrhea.

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