



Laparoscopic Distal Pancreatectomy for Left-Sided Pancreatic Cancer Using the “Caudo-Dorsal Artery First Approach”

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ABSTRACT

Background. Pancreatic cancer (PC) has serious malignant potential, thus requiring complete resection and adequate regional lymphadenectomy with tumor-free margins.^{1,2} A standard laparoscopic distal pancreatectomy (LDP) procedure for PC is not yet established due to lack of supportive evidence.^{3–6}

Methods. In our hospital, we first administered neoadjuvant chemoradiotherapy for resectable PC. Considering the benefits offered by a laparoscopic magnified caudo-dorsal view, we devised and standardized an LDP procedure for PC, which we employed in five patients with left-sided resectable tumors. First, the retroperitoneum was incised between the proximal jejunum and the inferior mesenteric vein with the transverse colon pushed up ventrally and cranially and with the proximal jejunum moved to the right. Then, the left renal vein (LRV) could be easily identified at this site. The retroperitoneal tissue was dissected along the LRV, and the origin of the superior mesenteric artery (SMA) also was identified just above the LRV easily. The left adrenal gland was removed to secure the dorsal margin, if needed. The retroperitoneal dissection was continued along the major anatomical landmarks, including the LRV, the left renal artery, the left kidney, and the crus of the diaphragm beside the origin of the SMA. Using the same operative field, lymphadenectomy around

the SMA was performed before dividing the pancreas. We could safely and easily expose the left aspect of the SMA after dissecting the ligament of Treitz. The dissection around the SMA was performed toward the side of the arterial root that had already been exposed above the LRV. Thus, the most important difficult steps of LDP for PC, such as retroperitoneal dissection and lymphadenectomy around the SMA, were safely performed early in the operation with a good laparoscopic view.

Results. The median operative time was 341 (range 288–354) minutes, and median blood loss was 150 (range 50–150) ml. An intraoperative transfusion was not required for any patient. Severe postoperative complications or mortality were absent. An R0 resection was achieved in all patients.

Conclusions. LDP using the “caudo-dorsal artery first approach” is safe and useful for performing a minimally invasive, curative resection for left-sided PC.

DISCLOSURE The all authors have no conflicts to disclose.

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