



Mesenteric approach or conventional approach for pancreatoduodenectomy?

Eduardo de Souza M Fernandes^{1,2^}, Orlando Jorge M Torres^{3^}

¹Department of Surgery, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil; ²Hepatopancreatobiliary and Transplant Department, DHR, McAllen, TX, USA; ³Department of Hepatopancreatobiliary and Liver Transplant, Maranhão Federal University, São Luís, Brazil

Correspondence to: Orlando Jorge M Torres, MD, PhD. Full Professor and Chairman, Department of Hepatopancreatobiliary and Liver Transplant, Maranhão Federal University, Rua dos Bicudos 14/600 Ed. Aspen, Renascença II. São Luís, MA 65075-090, Brazil. Email: orlando.torres@ufma.br.

Comment on: Hirono S, Kitahata Y, Motobayashi H, *et al.* Mesenteric Versus Conventional Approach During Pancreatoduodenectomy for Pancreatic Ductal Adenocarcinoma (MAPLE-PD trial): A Multicenter Randomized Controlled Trial. *Ann Surg* 2026;283:581-92.

Keywords: Mesenteric approach; conventional approach; pancreatic adenocarcinoma; pancreatic head cancer; artery-first approach

Submitted Dec 13, 2025. Accepted for publication Jun 03, 2026. Published online Jun 26, 2026.

doi: 10.21037/gs-2025-1-579

View this article at: <https://dx.doi.org/10.21037/gs-2025-1-579>

We read with interest the paper by Hirono *et al.*, entitled “Mesenteric versus conventional approach during pancreatoduodenectomy for pancreatic ductal adenocarcinoma (MAPLE-PD trial): A multicenter randomized controlled trial”, published in *Annals of Surgery* in 2026 (1). The authors concluded that the mesenteric approach does not improve survival in patients with resectable or borderline resectable pancreatic ductal adenocarcinoma (BR-PDAC). The mesenteric approach is designed to prevent the intraoperative dissemination of cancer cells via vessels by employing a non-touch isolation technique (1).

The concept of an artery-first approach is to dissect the connective tissue and perineural lymphatic layer in the dorsal aspect of the pancreatic head, between the pancreatic uncinate process and the superior mesenteric artery (SMA), to increase R0 resection rates. This approach is also important for the early assessment of arterial involvement in patients with BR-PDAC (2,3).

This technique is routinely used for total mesopancreas excision and has become standard practice in Japanese centers. It is characterized by early control and meticulous clearance of the SMA margin at the start of resection to identify arterial tumor infiltration, evaluate resectability, ensure adequate clearance of the right side of the SMA,

perform radical lymphadenectomy, and reduce bleeding through early ligation of the inferior pancreatoduodenal artery (IPDA). Six different “artery-first” techniques have been described by Sanjay *et al.* (2), including, among others, the right posterior approach (via the retroperitoneum) and the mesenteric approach, which is the focus of the MAPLE-PD trial.

In the original MAPLE-PD protocol, the authors planned to include 15 centers; however, the final published article reports 24 participating centers (3). Clarifying when and how these additional centers were incorporated is important, as the expertise of the original nine centers in performing both the mesenteric and posterior approaches underpins the study’s methodological quality.

Patients were blinded to the surgical approach; however, surgeons and centers could not be blinded because of the nature of the intervention. In our view, each technique should be performed only in centers with established expertise in that specific procedure—particularly the mesenteric approach—which was not the case in this trial. Doing so would help reduce the risk of technique-related assessment bias. Moreover, the authors noted that the mesenteric approach was not routinely used in many participating centers. Therefore, it is important to determine how many mesenteric-approach cases are

[^] ORCID: Eduardo de Souza M Fernandes, 0000-0003-1304-5075; Orlando Jorge M Torres, 0000-0002-7398-5395.

required to achieve expertise (i.e., the learning curve) and qualify for inclusion, and whether JSHPBS certification formally evaluates surgeons' proficiency with the mesenteric approach (4).

According to Hirono *et al.* (1), the conventional approach (conventional group) includes Kocher's maneuver, mobilization of the pancreatic head from the retroperitoneum, and lymphadenectomy around the common hepatic artery (lymph node station 8), the root of the left gastric artery (station 7), the right side of the celiac artery (station 9), and within the hepatoduodenal ligament (station 12). The dissection also includes removal of connective tissue around the SMA (station 14) and pPh-II, as well as division of the IPDA or the common trunk of the IPDA and the first jejunal artery branch (J1a), with or without superior mesenteric–portal vein (SMV–PV) resection if tumor invasion is suspected. In many Western centers, the standard approach to pancreatoduodenectomy does not involve extensive lymph node dissection. In the MAPLE-PD trial, the extent of lymph node dissection was identical in both groups. Lymph node dissection around the SMA was performed circumferentially, and dissection around the celiac artery was carried out on the right semicircle in both groups, following the oncological standard for PDAC (5-7).

The mesenteric approach is less common than the conventional approach and requires more training to become familiar with the procedure. In many centers, some surgeons consider the mesenteric approach complex and difficult to learn, since the dissection begins in the infracolic mesentery and extends to the mesenteric root (5-7). The secondary outcome was compromised in the MAPLE-PD trial, which may be related to limited experience with the mesenteric approach in some of the 24 participating centers, as suggested by the present study's findings of greater intraoperative blood loss and longer operative times, particularly during the learning curve.

We congratulate the authors on this outstanding study.

Acknowledgments

None.

Footnote

Provenance and Peer Review: This article was commissioned by the editorial office, *Gland Surgery*. The article has undergone external peer review.

Peer Review File: Available at <https://gs.amegroups.com/article/view/10.21037/gS-2025-1-579/prf>

Funding: None.

Conflicts of Interest: Both authors have completed the ICMJE uniform disclosure form (available at <https://gs.amegroups.com/article/view/10.21037/gS-2025-1-579/coif>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

References

1. Hirono S, Kitahata Y, Motobayashi H, et al. Mesenteric Versus Conventional Approach During Pancreatoduodenectomy for Pancreatic Ductal Adenocarcinoma (MAPLE-PD trial): A Multicenter Randomized Controlled Trial. *Ann Surg* 2026;283:581-92.
2. Sanjay P, Takaori K, Govil S, et al. 'Artery-first' approaches to pancreatoduodenectomy. *Br J Surg* 2012;99:1027-35.
3. Hirono S, Kawai M, Okada K, et al. MAPLE-PD trial (Mesenteric Approach vs. Conventional Approach for Pancreatic Cancer during Pancreaticoduodenectomy): study protocol for a multicenter randomized controlled trial of 354 patients with pancreatic ductal adenocarcinoma. *Trials* 2018;19:613.
4. Pessaux P, Varma D, Arnaud JP. Pancreaticoduodenectomy: superior mesenteric artery first approach. *J Gastrointest Surg* 2006;10:607-11.
5. Fernandes ESM, Strobel O, Girão C, et al. What do surgeons need to know about the mesopancreas. *Langenbecks Arch Surg* 2021;406:2621-32.
6. Inoue Y, Saiura A, Oba A, et al. Optimal Extent of Superior Mesenteric Artery Dissection during

Pancreaticoduodenectomy for Pancreatic Cancer: Balancing Surgical and Oncological Safety. J Gastrointest Surg 2019;23:1373-83.

7. Sabater L, Cugat E, Serrablo A, et al. Does the Artery-

first Approach Improve the Rate of R0 Resection in Pancreatoduodenectomy? A Multicenter, Randomized, Controlled Trial. Ann Surg 2019;270:738-46.

Cite this article as: Fernandes ESM, Torres OJM. Mesenteric approach or conventional approach for pancreatoduodenectomy? Gland Surg 2026;15(6):153. doi: 10.21037/gs-2025-1-579