Laparoscopic Pylorus Preserving Gastrectomy with Intra-Corporeal Gastro-Gastrostomy Guided by Intra-Operative Gastroscopy

Mohd Firdaus Che Ani\textsuperscript{1,3}, Zhuang Chun\textsuperscript{1,4}, Abdullah Almayouf\textsuperscript{1}, Jee-sun Kim\textsuperscript{1,2}, Seong-Ho Kong\textsuperscript{1,2}, Do-Joong Park\textsuperscript{1,2}, Han-Kwang Yang\textsuperscript{1,2}, Hyuk-Joon Lee\textsuperscript{1,2}

\textsuperscript{1}Division of Gastrointestinal Surgery, Department of Surgery, Seoul National University Hospital, Seoul, Republic of Korea
\textsuperscript{2}Department of Surgery, Seoul National University College of Medicine, Seoul, Republic of Korea
\textsuperscript{3}Department of Surgery, Faculty of Medicine, Universiti Teknologi MARA, Selangor, Malaysia
\textsuperscript{4}Department of Gastrointestinal Surgery, Renji Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, China

Gastric cancer detection is advancing to a point where screening programs can detect gastric cancer at early stages. This allows surgical procedures to be less radical than before. Studies have proven that pylorus preserving gastrectomy is a safe procedure in early T1a and T1b gastric cancers where the tumour location is in the middle third of the stomach. However, due to the small tumour size, determining an appropriate resection margin can be challenging. A few techniques have been developed to overcome this difficulty, and at our centre, we perform intra-operative gastroscopy to synchronize with the laparoscopic view and precisely determine the tumour location for optimal gastric resections. This allows the gastrectomy to be performed safely and prevents inadequate resection leaving tumour cells behind. This video is aimed at sharing our experience in performing pylorus-preserving gastrectomy [1-7].

Chapter Summary

- 00:00:01 Introduction
- 00:00:10 Case summary
- 00:00:23 Radiology: X-ray
- 00:00:30 Radiology: staging CT scan (snapshot)
- 00:00:38 Schematic diagram for PPG (gastric resection & lymph node dissection)
- 00:00:45 Laparoscopic assessment and liver retraction
- 00:00:51 Marking of important anatomical landmarks
- 00:01:16 Beginning of dissection over greater curvature: partial omentectomy
- 00:01:44 Intra-operative gastroscopy
- 00:02:45 Take down of the left gastro-epiploic vessels
- 00:03:32 Dissection of intra-pyloric region
- 00:04:35 Infra-pyloric artery preservation and right gastro epiploic vessel dissection
- 00:06:37 Supra-pyloric dissection
- 00:07:16 Distal gastric transection
- 00:07:57 Take-down of the left gastric artery and vein pedicle
- 00:08:45 Dissection of proximal lesser curvature
- 00:09:13 Proximal gastric transection
- 00:09:39 Gastro-gastrostomy reconstruction

Received: June 3, 2024  Revised: June 19, 2024  Accepted: June 19, 2024
Corresponding author: Hyuk-Joon Lee, MD, PhD
Department of Surgery and Cancer Research Institute, Seoul National University College of Medicine; Division of Gastrointestinal Surgery, Seoul National University Hospital; Gastric Cancer Center, Seoul National University Cancer Hospital, 101 Daehak-ro, Jongno-gu, Seoul 03080, Republic of Korea
Tel: +82-2-2072-1957, E-mail: appe98@snu.ac.kr

© 2024 Korean Surgical Skill Study Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/4.0) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.
00:12:48 Irrigation of the peritoneal cavity
00:12:53 Resected gastric specimen
00:12:58 Final pathology report

ORCID

Mohd Firdaus Che Ani, https://orcid.org/0000-0001-7356-2571
Zhuang Chun, https://orcid.org/0000-0001-8127-4510
Jee-sun Kim, https://orcid.org/0000-0002-2672-7764
Seong-Ho Kong, https://orcid.org/0000-0002-3929-796X
Do-Joong Park, https://orcid.org/0000-0001-9644-6127
Han-Kwang Yang, https://orcid.org/0000-0003-3495-3048
Hyuk-Joon Lee, https://orcid.org/0000-0002-9530-647X

References