

World Journal of *Clinical Cases*

World J Clin Cases 2022 June 6; 10(16): 5124-5517



Contents

Thrice Monthly Volume 10 Number 16 June 6, 2022

OPINION REVIEW

- 5124 Malignant insulinoma: Can we predict the long-term outcomes?
Cigrovski Berkovic M, Ulamec M, Marinovic S, Balen I, Mrzljak A

MINIREVIEWS

- 5133 Practical points that gastrointestinal fellows should know in management of COVID-19
Sahin T, Simsek C, Balaban HY
- 5146 Nanotechnology in diagnosis and therapy of gastrointestinal cancer
Liang M, Li LD, Li L, Li S
- 5156 Advances in the clinical application of oxycodone in the perioperative period
Chen HY, Wang ZN, Zhang WY, Zhu T

ORIGINAL ARTICLE

Clinical and Translational Research

- 5165 Circulating miR-627-5p and miR-199a-5p are promising diagnostic biomarkers of colorectal neoplasia
Zhao DY, Zhou L, Yin TF, Zhou YC, Zhou GYJ, Wang QQ, Yao SK

Retrospective Cohort Study

- 5185 Management and outcome of bronchial trauma due to blunt *versus* penetrating injuries
Gao JM, Li H, Du DY, Yang J, Kong LW, Wang JB, He P, Wei GB

Retrospective Study

- 5196 Ovarian teratoma related anti-N-methyl-D-aspartate receptor encephalitis: A case series and review of the literature
Li SJ, Yu MH, Cheng J, Bai WX, Di W
- 5208 Endoscopic surgery for intraventricular hemorrhage: A comparative study and single center surgical experience
Wang FB, Yuan XW, Li JX, Zhang M, Xiang ZH
- 5217 Protective effects of female reproductive factors on gastric signet-ring cell carcinoma
Li Y, Zhong YX, Xu Q, Tian YT
- 5230 Risk factors of mortality and severe disability in the patients with cerebrovascular diseases treated with perioperative mechanical ventilation
Zhang JZ, Chen H, Wang X, Xu K

- 5241** Awareness of initiative practice for health in the Chinese population: A questionnaire survey based on a network platform

Zhang YQ, Zhou MY, Jiang MY, Zhang XY, Wang X, Wang BG

- 5253** Effectiveness and safety of chemotherapy for patients with malignant gastrointestinal obstruction: A Japanese population-based cohort study

Fujisawa G, Niikura R, Kawahara T, Honda T, Hasatani K, Yoshida N, Nishida T, Sumiyoshi T, Kiyotoki S, Ikeya T, Arai M, Hayakawa Y, Kawai T, Fujishiro M

Observational Study

- 5266** Long-term outcomes of high-risk percutaneous coronary interventions under extracorporeal membrane oxygenation support: An observational study

Huang YX, Xu ZM, Zhao L, Cao Y, Chen Y, Qiu YG, Liu YM, Zhang PY, He JC, Li TC

- 5275** Health care worker occupational experiences during the COVID-19 outbreak: A cross-sectional study

Li XF, Zhou XL, Zhao SX, Li YM, Pan SQ

Prospective Study

- 5287** Enhanced recovery after surgery strategy to shorten perioperative fasting in children undergoing non-gastrointestinal surgery: A prospective study

Ying Y, Xu HZ, Han ML

- 5297** Orthodontic treatment combined with 3D printing guide plate implant restoration for edentulism and its influence on mastication and phonic function

Yan LB, Zhou YC, Wang Y, Li LX

Randomized Controlled Trial

- 5306** Effectiveness of psychosocial intervention for internalizing behavior problems among children of parents with alcohol dependence: Randomized controlled trial

Omkarappa DB, Rentala S, Nattala P

CASE REPORT

- 5317** Crouzon syndrome in a fraternal twin: A case report and review of the literature

Li XJ, Su JM, Ye XW

- 5324** Laparoscopic duodenojejunostomy for malignant stenosis as a part of multimodal therapy: A case report

Murakami T, Matsui Y

- 5331** Chordoma of petrosal mastoid region: A case report

Hua JJ, Ying ML, Chen ZW, Huang C, Zheng CS, Wang YJ

- 5337** Pneumatosis intestinalis after systemic chemotherapy for colorectal cancer: A case report

Liu H, Hsieh CT, Sun JM

- 5343** Mammary-type myofibroblastoma with infarction and atypical mitosis-a potential diagnostic pitfall: A case report

Zeng YF, Dai YZ, Chen M

- 5352** Comprehensive treatment for primary right renal diffuse large B-cell lymphoma with a renal vein tumor thrombus: A case report
He J, Mu Y, Che BW, Liu M, Zhang WJ, Xu SH, Tang KF
- 5359** Ectopic peritoneal paragonimiasis mimicking tuberculous peritonitis: A care report
Choi JW, Lee CM, Kim SJ, Hah SI, Kwak JY, Cho HC, Ha CY, Jung WT, Lee OJ
- 5365** Neonatal hemorrhage stroke and severe coagulopathy in a late preterm infant after receiving umbilical cord milking: A case report
Lu Y, Zhang ZQ
- 5373** Heel pain caused by os subcalcis: A case report
Saijilafu, Li SY, Yu X, Li ZQ, Yang G, Lv JH, Chen GX, Xu RJ
- 5380** Pulmonary lymphomatoid granulomatosis in a 4-year-old girl: A case report
Yao JW, Qiu L, Liang P, Liu HM, Chen LN
- 5387** Idiopathic membranous nephropathy in children: A case report
Cui KH, Zhang H, Tao YH
- 5394** Successful treatment of aortic dissection with pulmonary embolism: A case report
Chen XG, Shi SY, Ye YY, Wang H, Yao WF, Hu L
- 5400** Renal papillary necrosis with urinary tract obstruction: A case report
Pan HH, Luo YJ, Zhu QG, Ye LF
- 5406** Glomangiomas - immunohistochemical study: A case report
Wu RC, Gao YH, Sun WW, Zhang XY, Zhang SP
- 5414** Successful living donor liver transplantation with a graft-to-recipient weight ratio of 0.41 without portal flow modulation: A case report
Kim SH
- 5420** Treatment of gastric hepatoid adenocarcinoma with pembrolizumab and bevacizumab combination chemotherapy: A case report
Liu M, Luo C, Xie ZZ, Li X
- 5428** Ipsilateral synchronous papillary and clear renal cell carcinoma: A case report and review of literature
Yin J, Zheng M
- 5435** Laparoscopic radical resection for situs inversus totalis with colonic splenic flexure carcinoma: A case report
Zheng ZL, Zhang SR, Sun H, Tang MC, Shang JK
- 5441** PIGN mutation multiple congenital anomalies-hypotonia-seizures syndrome 1: A case report
Hou F, Shan S, Jin H

- 5446** Pediatric acute myeloid leukemia patients with i(17)(q10) mimicking acute promyelocytic leukemia: Two case reports
Yan HX, Zhang WH, Wen JQ, Liu YH, Zhang BJ, Ji AD
- 5456** Fatal left atrial air embolism as a complication of percutaneous transthoracic lung biopsy: A case report
Li YW, Chen C, Xu Y, Weng QP, Qian SX
- 5463** Diagnostic value of bone marrow cell morphology in visceral leishmaniasis-associated hemophagocytic syndrome: Two case reports
Shi SL, Zhao H, Zhou BJ, Ma MB, Li XJ, Xu J, Jiang HC
- 5470** Rare case of hepatocellular carcinoma metastasis to urinary bladder: A case report
Kim Y, Kim YS, Yoo JJ, Kim SG, Chin S, Moon A
- 5479** Osteotomy combined with the trephine technique for invisible implant fracture: A case report
Chen LW, Wang M, Xia HB, Chen D
- 5487** Clinical diagnosis, treatment, and medical identification of specific pulmonary infection in naval pilots: Four case reports
Zeng J, Zhao GL, Yi JC, Liu DD, Jiang YQ, Lu X, Liu YB, Xue F, Dong J
- 5495** Congenital tuberculosis with tuberculous meningitis and situs inversus totalis: A case report
Lin H, Teng S, Wang Z, Liu QY
- 5502** Mixed large and small cell neuroendocrine carcinoma of the stomach: A case report and review of literature
Li ZF, Lu HZ, Chen YT, Bai XF, Wang TB, Fei H, Zhao DB

LETTER TO THE EDITOR

- 5510** Pleural involvement in cryptococcal infection
Georgakopoulou VE, Damaskos C, Sklapani P, Trakas N, Gkoufa A
- 5515** Electroconvulsive therapy plays an irreplaceable role in treatment of major depressive disorder
Ma ML, He LP

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Shivanshu Misra, MBBS, MCh, MS, Assistant Professor, Surgeon, Department of Minimal Access and Bariatric Surgery, Shivani Hospital and IVF, Kanpur 208005, Uttar Pradesh, India. shivanshu_medico@rediffmail.com

AIMS AND SCOPE

The primary aim of *World Journal of Clinical Cases* (WJCC, *World J Clin Cases*) is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

WJCC mainly publishes articles reporting research results and findings obtained in the field of clinical medicine and covering a wide range of topics, including case control studies, retrospective cohort studies, retrospective studies, clinical trials studies, observational studies, prospective studies, randomized controlled trials, randomized clinical trials, systematic reviews, meta-analysis, and case reports.

INDEXING/ABSTRACTING

The WJCC is now indexed in Science Citation Index Expanded (also known as SciSearch®), Journal Citation Reports/Science Edition, Scopus, PubMed, and PubMed Central. The 2021 Edition of Journal Citation Reports® cites the 2020 impact factor (IF) for WJCC as 1.337; IF without journal self cites: 1.301; 5-year IF: 1.742; Journal Citation Indicator: 0.33; Ranking: 119 among 169 journals in medicine, general and internal; and Quartile category: Q3. The WJCC's CiteScore for 2020 is 0.8 and Scopus CiteScore rank 2020: General Medicine is 493/793.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: Xu Guo; Production Department Director: Xiang Li; Editorial Office Director: Jin-Lei Wang.

NAME OF JOURNAL

World Journal of Clinical Cases

ISSN

ISSN 2307-8960 (online)

LAUNCH DATE

April 16, 2013

FREQUENCY

Thrice Monthly

EDITORS-IN-CHIEF

Bao-Gan Peng, Jerzy Tadeusz Chudek, George Kontogeorgos, Maurizio Serati, Ja Hyeon Ku

EDITORIAL BOARD MEMBERS

<https://www.wjgnet.com/2307-8960/editorialboard.htm>

PUBLICATION DATE

June 6, 2022

COPYRIGHT

© 2022 Baishideng Publishing Group Inc

INSTRUCTIONS TO AUTHORS

<https://www.wjgnet.com/bpg/gerinfo/204>

GUIDELINES FOR ETHICS DOCUMENTS

<https://www.wjgnet.com/bpg/GerInfo/287>

GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH

<https://www.wjgnet.com/bpg/gerinfo/240>

PUBLICATION ETHICS

<https://www.wjgnet.com/bpg/GerInfo/288>

PUBLICATION MISCONDUCT

<https://www.wjgnet.com/bpg/gerinfo/208>

ARTICLE PROCESSING CHARGE

<https://www.wjgnet.com/bpg/gerinfo/242>

STEPS FOR SUBMITTING MANUSCRIPTS

<https://www.wjgnet.com/bpg/GerInfo/239>

ONLINE SUBMISSION

<https://www.f6publishing.com>



Laparoscopic duodenojejunostomy for malignant stenosis as a part of multimodal therapy: A case report

Teppei Murakami, Yugo Matsui

Specialty type: Surgery

Provenance and peer review:

Unsolicited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's scientific quality classification

Grade A (Excellent): 0

Grade B (Very good): 0

Grade C (Good): C

Grade D (Fair): D, D

Grade E (Poor): 0

P-Reviewer: Cianci P, Italy; Cianci P, Italy; Scurtu RR, Romania

Received: June 22, 2021

Peer-review started: June 22, 2021

First decision: August 19, 2021

Revised: August 28, 2021

Accepted: April 2, 2022

Article in press: April 2, 2022

Published online: June 6, 2022



Teppei Murakami, Yugo Matsui, Department of Surgery, Kobe City Hospital Organization Kobe City Center West Hospital, Kobe 653-0013, Hyogo, Japan

Corresponding author: Teppei Murakami, MD, PhD, Doctor, Department of Surgery, Kobe City Hospital Organization Kobe City Center West Hospital, 4-2 Ichibancho Nagata-ku, Kobe 653-0013, Hyogo, Japan. manetorix@gmail.com

Abstract

BACKGROUND

Laparoscopic duodenojejunostomy (LDJ) has become the standard surgical procedure for superior mesenteric artery syndrome due to its sufficient outcome in terms of safety and symptom relief. However, there are only a few reports about LDJ for malignant stenosis and its indication remains uncertain.

CASE SUMMARY

A 77-year-old woman with a history of pancreatic cancer (PC) treated with distal pancreatectomy with *en bloc* resection of the transverse colon 7 mo ago was admitted for recurrent vomiting. Imaging upon admission revealed marked distention of the duodenum and a tumor around the duodenojejunal flexure. She was diagnosed with malignant stenosis caused by local recurrence of PC. LDJ was performed with an uneventful postoperative course, followed by chemotherapy which gave her 10 mo overall survival.

CONCLUSION

We think that LDJ is a valuable method for unresectable malignant stenosis around the duodenojejunal flexure as a part of multimodal therapy.

Key Words: Duodenojejunostomy; Laparoscopic surgery; Malignant stenosis; Pancreatic cancer; Multimodal therapy

©The Author(s) 2022. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: There are many reports on laparoscopic duodenojejunostomy (LDJ) for superior mesenteric artery syndrome, but rarely for malignant stenosis. In general, prognosis of patients with recurrent cancer is poor; however, development of new chemotherapeutic agents and new combination therapy improve their overall survival. Obstruction due to malignancy is often an obstacle for chemotherapy, and a safe and minimally invasive method would help enable a rapid induction. We think LDJ is a valuable method for patients with unresectable malignant stenosis around the duodenojejunal flexure.

Citation: Murakami T, Matsui Y. Laparoscopic duodenojejunostomy for malignant stenosis as a part of multimodal therapy: A case report. *World J Clin Cases* 2022; 10(16): 5324-5330

URL: <https://www.wjgnet.com/2307-8960/full/v10/i16/5324.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v10.i16.5324>

INTRODUCTION

Patients with recurrent or metastatic cancer have poor prognosis, and chemotherapy has a pivotal role in their survival[1-3], especially in highly malignant disease such as pancreatic cancer (PC). When patients with unresectable malignancies require surgery for symptom relief, selection of a minimally invasive procedure allows faster recovery and thus quicker induction of chemotherapy.

Laparoscopic duodenojejunostomy (LDJ) has become the standard surgical procedure for superior mesenteric artery syndrome (SMAS) due to its sufficient short- and long-term outcomes in terms of safety and symptom relief[4,5]. However, there are only a few reports about LDJ for malignant stenosis [6] and its indication remains uncertain.

We report a successful case of LDJ as palliative care in a patient with unresectable malignant stenosis around the duodenojejunal flexure caused by recurrent PC (rPC). The postoperative course was uneventful, and early food consumption and induction of chemotherapy were achieved. Hence, we think this method is valuable for the multimodal therapy of unresectable malignancies.

CASE PRESENTATION

Chief complaints

A 77-year-old woman presented with upper right abdominal distension and recurrent vomiting.

History of present illness

The patient had a history of PC treated with distal pancreatectomy with *en bloc* resection of the transverse colon 7 mo ago. She presented with upper right abdominal distension and recurrent vomiting since 1 d ago and was admitted to our institution as an emergency.

History of past illness

She underwent distal pancreatectomy with *en bloc* resection of the transverse colon for PC.

Personal and family history

The patient had no specific family history.

Physical examination

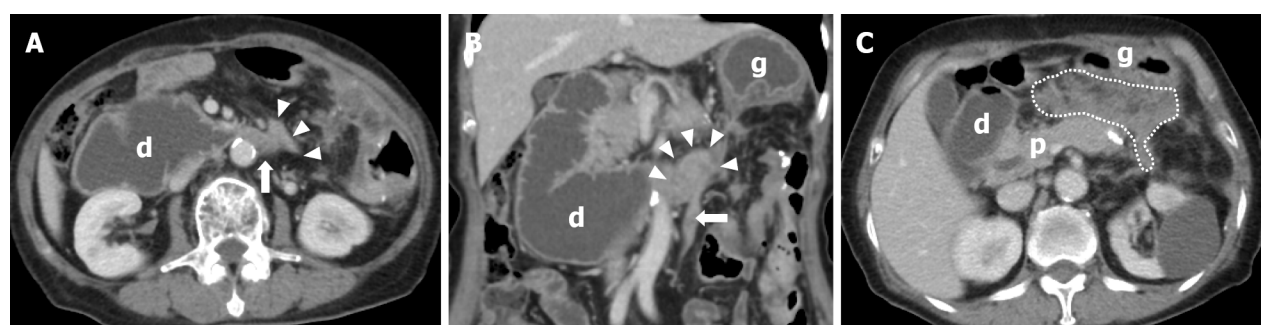
Blood pressure 134/90 mmHg, heart rate 82 beats/min, respiration rate 12 breaths/min and body temperature 36.2 °C were noted upon arrival. The upper right abdomen was distended but soft and there was no abdominal pain.

Laboratory examinations

Creatinine and blood urea nitrogen were elevated to 2.21 mg/dL (normal range: 0.65-1.1 mg/dL) and 28 mg/dL (normal range: 8-20 mg/dL), respectively. Tumor marker carbohydrate antigen 19-9 markedly increased to 6191 U/mL (normal range: 0-45 U/mL).

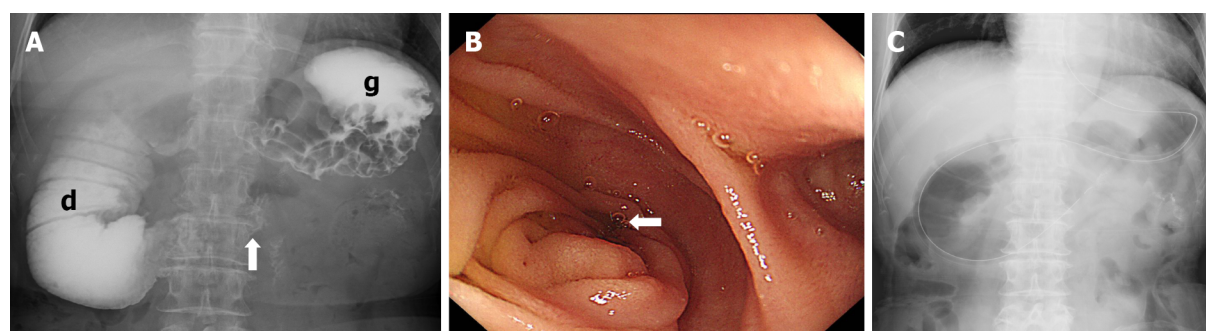
Imaging examinations

Computed tomography on admission revealed a soft tissue mass dorsal to the stomach and nearby duodenojejunal flexure. We found a dilated duodenum and collapsed jejunum (Figure 1). Upper gastrointestinal examination showed a dilated duodenum, limited extensibility of the stomach and no gastrografin passage through the duodenojejunal flexure (Figure 2A). Upper gastrointestinal endoscopy



DOI: 10.12998/wjcc.v10.i16.5324 Copyright ©The Author(s) 2022.

Figure 1 Computed tomography on admission. A and C: Horizontal section; B: Coronal section. Computed tomography revealed a soft tissue mass dorsal to the stomach (C: white dotted line) and nearby duodenojejunal flexure (A and B: white arrow head). Dilated duodenum (d) and collapsed jejunum (A and B: white arrow) was found. g: Stomach; d: Duodenum; p: Pancreas.



DOI: 10.12998/wjcc.v10.i16.5324 Copyright ©The Author(s) 2022.

Figure 2 Preoperative upper gastrointestinal investigation and upper gastrointestinal endoscopy. A: Upper gastrointestinal investigation showed a dilated duodenum (d), stomach lacking extensibility (g) and no gastrografin passage through the duodenojejunal flexure (white arrow); B: Upper gastrointestinal endoscopy could not pass through the duodenojejunal flexure due to intraluminal stenosis (white arrow) but revealed no mucosal surface change; C: A nasogastric tube was placed to decompress the stomach and duodenum. g: Stomach; d: Duodenum.

revealed stricture at the duodenojejunal flexure due to intraluminal stenosis but revealed no mucosal surface changes (Figure 2B), and a nasogastric tube was placed to decompress the stomach and duodenum (Figure 2C).

FINAL DIAGNOSIS

Malignant stenosis of the duodenojejunal flexure caused by local recurrence of PC.

TREATMENT

Surgical intervention was essential for symptom relief and induction of chemotherapy. Gastrojejunal bypass was thought to be difficult due to the stiffness of the stomach, so we chose to perform DJ. A minimally invasive procedure was necessary for rapid recovery. LDJ was performed 9 d after admission. Decompression of the duodenum with nasogastric tube (Figure 2C) and correction of dehydration by total parenteral nutrition were performed preoperatively.

The patient was placed in the open-leg supine position and a 4-port procedure (Figure 3A) was performed with the operator on the left side of the patient. Laparoscopic findings revealed a dilated duodenum, no gastric mobility and no peritoneal metastasis. With upward traction on the transverse colon, the second and third portions of the duodenum were exposed and mobilized (Figure 4A). We chose the third portion and jejunum about 30 cm anal to the Treitz ligament for anastomosis (Figure 4B and 4C). A side-to-side DJ was performed in an antiperistaltic manner using a stapling device (Signia with 45 mm purple reload; Covidien Japan, Tokyo, Japan) (Figure 4C). The common entry hole was closed with a continuous absorbable V-Loc suture (Covidien Japan) (Figure 4D). The operating time was 90 min with trivial bleeding. No drain was placed. Intraoperative findings are summarized in Figure 3.

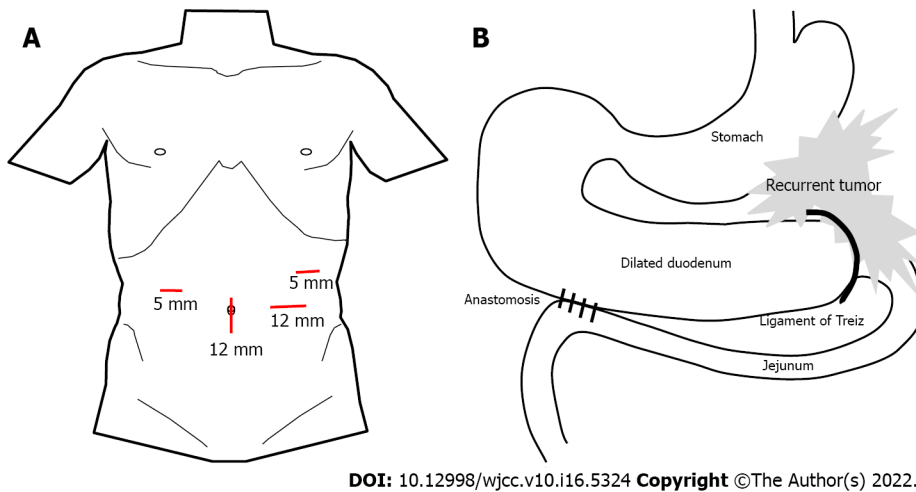


Figure 3 Schematic illustration. A: Port placement; B: Anatomy of anastomosis in laparoscopic duodenojejunostomy.

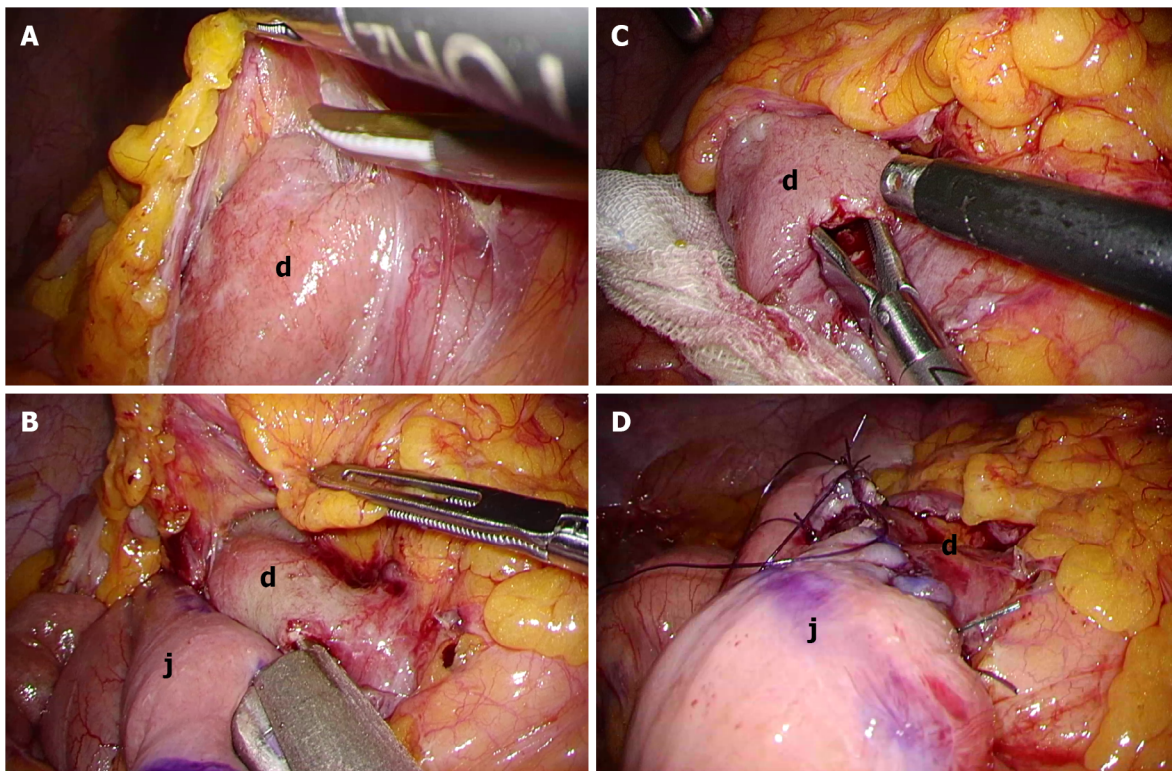
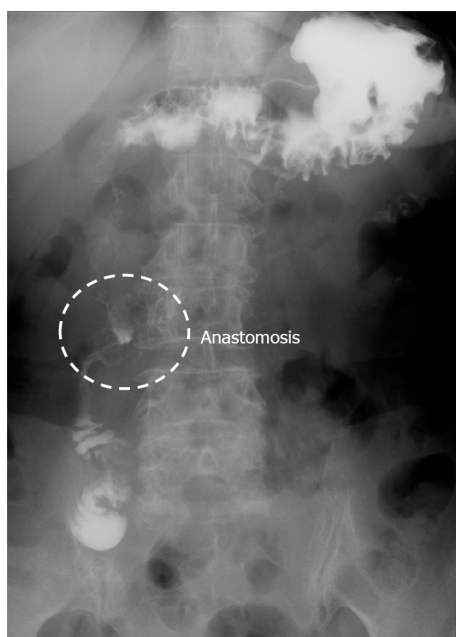


Figure 4 Images of duodenojejunostomy. A: The second and third portions of the duodenum (d) were exposed and mobilized; B: Enterotomy was created in the third portion of the duodenum (d) and jejunum (j) about 30 cm anal to the Treitz ligament for anastomosis; C: A side-to-side duodenojejunostomy was performed in the manner of antiperistalsis using 45-mm stapling device; D: The common entry hole was closed with a continuous suture. g: Stomach; j: Jejunum.

OUTCOME AND FOLLOW-UP

Postoperative course was uneventful. Oral fluid intake and food consumption were started on postoperative day (POD) 2 and 7, respectively. Upper gastrointestinal examination on POD 5 showed good patency of the anastomosis (Figure 5). The patient was discharged on POD 9, followed by induction of outpatient chemotherapy (nab-paclitaxel + gemcitabine) started on POD 30.

Six months later, (7 mo after the operation), chemotherapy was terminated due to disease progression and the patient's desire for best supportive care. Although she died of PC 10 mo after the operation, she could tolerate food consumption until just before her death.



DOI: 10.12998/wjcc.v10.i16.5324 Copyright ©The Author(s) 2022.

Figure 5 Upper gastrointestinal investigation after laparoscopic duodenojejunostomy. Gastrografin passed from the duodenum into the jejunum through the anastomosis.

DISCUSSION

A single-center case series of LDJ, although for SMAS[4,5,7-11], showed no mortality, no anastomotic leaks, short length of stay and no recurrence of symptoms (Table 1). With such results, LDJ has been considered to be safe, efficacious and minimally invasive, and has become the standard surgical procedure for SMAS.

Gastrojejunostomy (GJS) used to be performed for SMAS. However, GJS is no longer considered to be a suitable method for SMAS since it has been associated with insufficient duodenal decompression, peptic ulcer, bile gastritis and blind loop syndrome[4,9,10]. LDJ, in contrast, provides more sufficient duodenal decompression and a more natural and physiological route for food passage.

The obstruction site in our patient resembled that of SMAS since it was located in the duodenojejunal flexure, and so we thought that LDJ could be a suitable method. As mentioned before, stiffness of the stomach makes GJS a difficult choice. Fortunately, rapid symptom relief and induction of chemotherapy was achieved, thus the selection of LDJ over GJS was an acceptable decision.

Prognosis of rPC after initial curative resection is poor and similar to that of *de novo* metastatic PC[1-3]. However, new anticancer agents and multiagent chemotherapy have improved overall survival (OS). The median OS for patients with rPC treated by chemotherapy is 10-14 mo compared to 3 mo without treatment[3], indicating the significant role of chemotherapy in prolonging the survival of these patients. In terms of our patient, she gained 10 mo survival, comparable to previous reports.

Improvement in quality of life (QOL) is also crucial in the multimodal therapy of cancer patients[12-15]. LDJ had a significant role in our patient by enabling oral food intake until the last few days of her life. High QOL is associated with better prognosis in patients receiving chemotherapy[12-14], although psychological distress can interfere with treatment[15]. We also believe that improving QOL is particularly important for patients with poor prognostic disease, and the fact that symptom relief and ability to eat were maintained in our patient shows that LDJ can have a significant role in palliative care of patients with obstruction around the duodenojejunal flexure due to unresectable malignant diseases such as lymphoma, PC, gastrointestinal tumor and peritoneal dissemination.

However, the indication for LDJ for unresectable malignancies remains uncertain since reports of LDJ performed on malignant stenosis are scarce[6]. LDJ is a method of palliative care, and so the absence of postoperative complications is crucial for prolonging survival of cancer patients by means of chemotherapy[16,17]. Preoperative management such as decompression of the duodenum with a nasogastric tube and correction of dehydration, electrolyte balances and nutrition are essential for avoiding complications such as anastomotic leakage. Chang *et al*[4] argues the importance of preoperative workup in LDJ for SMAS, and we think this can also apply for cancer patients as well.

To our knowledge, this is the first report on the role of LDJ as a part of a multimodal therapy for unresectable cancer. Many anticancer agents expected to prolong survival have been developed to date [18], and the role of minimally invasive surgery that preserve QOL will become increasingly significant. We expect more reports on cases of LDJ for malignant obstructions and hope that this procedure will be

Table 1 Short-term outcomes in recent case-series studies of laparoscopic duodenojejunostomy for superior mesenteric artery syndrome

Year	Author	Number of Patients	Mean operation time (min)	Mean length of stay (d)	Complication number of cases	Mortality
2001	Richardson <i>et al</i> [7]	2	113	3	None	None
2003	Kim <i>et al</i> [8]	2	173	5.5	None	None
2010	Munene <i>et al</i> [9]	13	121	4.5	Trocar site bleeding (1)	None
2015	Sun <i>et al</i> [10]	14	119	5.5	Dumping syndrome (1) Abdominal abscess (1)	None
2017	Chang <i>et al</i> [4]	18	144	5	Ileus (3)	None
2017	Kirby <i>et al</i> [11]	3	N/A	4.3	None	None
2021	Jain <i>et al</i> [5]	22	75	7.3	Delayed gastric emptying (4) Ileus (1)	None

an acceptable treatment option for patients with unresectable malignant obstruction around the duodenojejunal flexure.

CONCLUSION

LDJ is thought to be a valuable method of palliative care and as a part of multimodal therapy for patients with unresectable malignant stenosis around the duodenojejunal flexure. By preserving QOL, this procedure is expected to be a bridge to chemotherapy for unresectable malignancies.

FOOTNOTES

Author contributions: Murakami T wrote the manuscript; Matsui RY made the manuscript revision; All authors issued final approval for the version to be submitted.

Informed consent statement: Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Conflict-of-interest statement: The authors declare that they have no conflict of interest.

CARE Checklist (2016) statement: The authors have read the CARE Checklist (2016), and the manuscript was prepared and revised according to the CARE Checklist (2016).

Open-Access: This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <https://creativecommons.org/licenses/by-nc/4.0/>

Country/Territory of origin: Japan

ORCID number: Teppei Murakami 0000-0003-2621-4210; Yugo Matsui 0000-0001-9442-2279.

S-Editor: Chang KL

L-Editor: Kerr C

P-Editor: Chang KL

REFERENCES

- 1 Hajatdoost L, Sedaghat K, Walker EJ, Thomas J, Kosari S. Chemotherapy in Pancreatic Cancer: A Systematic Review. *Medicina (Kaunas)* 2018; **54** [PMID: 30344279 DOI: 10.3390/medicina54030048]

- 2 **Mizrahi JD**, Surana R, Valle JW, Shroff RT. Pancreatic cancer. *Lancet* 2020; **395**: 2008-2020 [PMID: [32593337](#) DOI: [10.1016/S0140-6736\(20\)30974-0](#)]
- 3 **Gbolahan OB**, Tong Y, Sehdev A, O'Neil B, Shahda S. Overall survival of patients with recurrent pancreatic cancer treated with systemic therapy: a retrospective study. *BMC Cancer* 2019; **19**: 468 [PMID: [31101022](#) DOI: [10.1186/s12885-019-5630-4](#)]
- 4 **Chang J**, Boules M, Rodriguez J, Walsh M, Rosenthal R, Kroh M. Laparoscopic duodenojejunostomy for superior mesenteric artery syndrome: intermediate follow-up results and a review of the literature. *Surg Endosc* 2017; **31**: 1180-1185 [PMID: [27405482](#) DOI: [10.1007/s00464-016-5088-2](#)]
- 5 **Jain N**, Chopde A, Soni B, Sharma B, Saini S, Mishra S, Gupta R, Bhojwani R. SMA syndrome: management perspective with laparoscopic duodenojejunostomy and long-term results. *Surg Endosc* 2021; **35**: 2029-2038 [PMID: [32342220](#) DOI: [10.1007/s00464-020-07598-1](#)]
- 6 **Cyriac J**, Klein L. A laparoscopic duodenojejunostomy for a duodenal obstruction from lymphoma. *Surg Endosc* 2007; **21**: 324 [PMID: [17195042](#) DOI: [10.1007/s00464-005-0874-2](#)]
- 7 **Richardson WS**, Surowiec WJ. Laparoscopic repair of superior mesenteric artery syndrome. *Am J Surg* 2001; **181**: 377-378 [PMID: [11438278](#) DOI: [10.1016/s0002-9610\(01\)00571-2](#)]
- 8 **Kim IY**, Cho NC, Kim DS, Rhoe BS. Laparoscopic duodenojejunostomy for management of superior mesenteric artery syndrome: two cases report and a review of the literature. *Yonsei Med J* 2003; **44**: 526-529 [PMID: [12833593](#) DOI: [10.3349/ymj.2003.44.3.526](#)]
- 9 **Munene G**, Knab M, Parag B. Laparoscopic duodenojejunostomy for superior mesenteric artery syndrome. *Am Surg* 2010; **76**: 321-324 [PMID: [20349665](#)]
- 10 **Sun Z**, Rodriguez J, McMichael J, Walsh RM, Chalikhonda S, Rosenthal RJ, Kroh MD, El-Hayek K. Minimally invasive duodenojejunostomy for superior mesenteric artery syndrome: a case series and review of the literature. *Surg Endosc* 2015; **29**: 1137-1144 [PMID: [25701058](#) DOI: [10.1007/s00464-014-3775-4](#)]
- 11 **Kirby GC**, Faulconer ER, Robinson SJ, Perry A, Downing R. Superior mesenteric artery syndrome: a single centre experience of laparoscopic duodenojejunostomy as the operation of choice. *Ann R Coll Surg Engl* 2017; **99**: 472-475 [PMID: [28660836](#) DOI: [10.1308/rcsann.2017.0063](#)]
- 12 **Shibayama K**, Kawaguchi Y, Otsuka T, Koga F, Nakashita S, Oza N, Ureshino N, Sadashima E, Kurobe K, Kosugi T, Shinchi K. Quality of Life During Chemotherapy in Japanese Patients with Unresectable Advanced Pancreatic Cancer. *Asian J Human Services* 2020; **19**: 42-54 [DOI: [10.14391/ajhs.19.42](#)]
- 13 **Gourgou-Bourgade S**, Bascoul-Molle C, Desseigne F, Ychou M, Bouché O, Guimbaud R, Bécouarn Y, Adenis A, Raoul JL, Boige V, Bérille J, Conroy T. Impact of FOLFIRINOX compared with gemcitabine on quality of life in patients with metastatic pancreatic cancer: results from the PRODIGE 4/ACCORD 11 randomized trial. *J Clin Oncol* 2013; **31**: 23-29 [PMID: [23213101](#) DOI: [10.1200/JCO.2012.44.4869](#)]
- 14 **Braun DP**, Gupta D, Staren ED. Longitudinal health-related quality of life assessment implications for prognosis in stage IV pancreatic cancer. *Pancreas* 2013; **42**: 254-259 [PMID: [22850626](#) DOI: [10.1097/MPA.0b013e31825b9f56](#)]
- 15 **Colleoni M**, Mandala M, Peruzzotti G, Robertson C, Bredart A, Goldhirsch A. Depression and degree of acceptance of adjuvant cytotoxic drugs. *Lancet* 2000; **356**: 1326-1327 [PMID: [11073026](#) DOI: [10.1016/S0140-6736\(00\)02821-X](#)]
- 16 **Merkow RP**, Bentrem DJ, Mulcahy MF, Chung JW, Abbott DE, Kmiecik TE, Stewart AK, Winchester DP, Ko CY, Bilimoria KY. Effect of postoperative complications on adjuvant chemotherapy use for stage III colon cancer. *Ann Surg* 2013; **258**: 847-853 [PMID: [24169157](#) DOI: [10.1097/SLA.0000000000000312](#)]
- 17 **Merkow RP**, Bilimoria KY, Tomlinson JS, Paruch JL, Fleming JB, Talamonti MS, Ko CY, Bentrem DJ. Postoperative complications reduce adjuvant chemotherapy use in resectable pancreatic cancer. *Ann Surg* 2014; **260**: 372-377 [PMID: [24374509](#) DOI: [10.1097/SLA.0000000000000378](#)]
- 18 **Zhong L**, Li Y, Xiong L, Wang W, Wu M, Yuan T, Yang W, Tian C, Miao Z, Wang T, Yang S. Small molecules in targeted cancer therapy: advances, challenges, and future perspectives. *Signal Transduct Target Ther* 2021; **6**: 201 [PMID: [34054126](#) DOI: [10.1038/s41392-021-00572-w](#)]



Published by **Baishideng Publishing Group Inc**
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA

Telephone: +1-925-3991568

E-mail: bpgoffice@wjgnet.com

Help Desk: <https://www.f6publishing.com/helpdesk>

<https://www.wjgnet.com>

