

World Journal of *Gastroenterology*

World J Gastroenterol 2024 February 14; 30(6): 516-613



EDITORIAL

- 516 Diagnostic tools for fecal incontinence: Scoring systems are the crucial first step
Liptak P, Duricek M, Banovcin P
- 523 Unmet needs in biomarkers for autoimmune pancreatitis diagnosis
Wang BC, Fan JG

REVIEW

- 527 Emerging role of exosomes in ulcerative colitis: Targeting NOD-like receptor family pyrin domain containing 3 inflammasome
Li X, Ji LJ, Feng KD, Huang H, Liang MR, Cheng SJ, Meng XD

ORIGINAL ARTICLE**Retrospective Study**

- 542 Preoperative prediction of lymphovascular and perineural invasion in gastric cancer using spectral computed tomography imaging and machine learning
Ge HT, Chen JW, Wang LL, Zou TX, Zheng B, Liu YF, Xue YJ, Lin WW

Clinical Trials Study

- 556 Optimized sequential therapy *vs* 10- and 14-d concomitant therapy for eradicating *Helicobacter pylori*: A randomized clinical trial
Seddik H, Benass J, Berrag S, Sair A, Berraida R, Boutallaka H

Basic Study

- 565 Role of deubiquitinase JOSD2 in the pathogenesis of esophageal squamous cell carcinoma
Wang WP, Shi D, Yun D, Hu J, Wang JF, Liu J, Yang YP, Li MR, Wang JF, Kong DL

META-ANALYSIS

- 579 Urea breath test for *Helicobacter pylori* infection in adult dyspeptic patients: A meta-analysis of diagnostic test accuracy
Lemos FFB, Castro CT, Silva Luz M, Rocha GR, Correa Santos GL, de Oliveira Silva LG, Calmon MS, Souza CL, Zarpelon-Schutz AC, Teixeira KN, Queiroz DMM, Freire de Melo F

CASE REPORT

- 599 Y-Z deformable magnetic ring for the treatment of rectal stricture: A case report and review of literature
Zhang MM, Sha HC, Qin YF, Lyu Y, Yan XP

LETTER TO THE EDITOR

- 607** Angiotensin-converting enzyme 2 alleviates liver fibrosis through the renin-angiotensin system
Zhao BW, Chen YJ, Zhang RP, Chen YM, Huang BW
- 610** Endoscopic intramural cystogastrostomy for treatment of peripancreatic fluid collection: A viewpoint from a surgeon
Ker CG

ABOUT COVER

Editorial Board Member of *World Journal of Gastroenterology*, Kok Yang Tan, FRCS (Ed), MBBS, Associate Professor, Chief Doctor, Senior Lecturer, Surgeon, Department of Surgery, Khoo Teck Puat Hospital, Singapore 768828, Singapore. kokyangtan@gmail.com

AIMS AND SCOPE

The primary aim of *World Journal of Gastroenterology* (WJG, *World J Gastroenterol*) is to provide scholars and readers from various fields of gastroenterology and hepatology with a platform to publish high-quality basic and clinical research articles and communicate their research findings online. WJG mainly publishes articles reporting research results and findings obtained in the field of gastroenterology and hepatology and covering a wide range of topics including gastroenterology, hepatology, gastrointestinal endoscopy, gastrointestinal surgery, gastrointestinal oncology, and pediatric gastroenterology.

INDEXING/ABSTRACTING

The WJG is now abstracted and indexed in Science Citation Index Expanded (SCIE), MEDLINE, PubMed, PubMed Central, Scopus, Reference Citation Analysis, China Science and Technology Journal Database, and Superstar Journals Database. The 2023 edition of Journal Citation Reports® cites the 2022 impact factor (IF) for WJG as 4.3; Quartile category: Q2. The WJG's CiteScore for 2021 is 8.3.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: *Ying-Yi Yuan*; Production Department Director: *Xiang Li*; Editorial Office Director: *Jia-Ru Fan*.

NAME OF JOURNAL

World Journal of Gastroenterology

ISSN

ISSN 1007-9327 (print) ISSN 2219-2840 (online)

LAUNCH DATE

October 1, 1995

FREQUENCY

Weekly

EDITORS-IN-CHIEF

Andrzej S Tarnawski

EXECUTIVE ASSOCIATE EDITORS-IN-CHIEF

Xian-Jun Yu (Pancreatic Oncology), Jian-Gao Fan (Chronic Liver Disease), Hou-Bao Liu (Biliary Tract Disease)

EDITORIAL BOARD MEMBERS

<http://www.wjgnet.com/1007-9327/editorialboard.htm>

PUBLICATION DATE

February 14, 2024

COPYRIGHT

© 2024 Baishideng Publishing Group Inc

PUBLISHING PARTNER

Shanghai Pancreatic Cancer Institute and Pancreatic Cancer Institute, Fudan University
Biliary Tract Disease Institute, Fudan University

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>

POLICY OF CO-AUTHORS

<https://www.wjgnet.com/bpg/GerInfo/310>

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>

PUBLISHING PARTNER'S OFFICIAL WEBSITE

<https://www.shca.org.cn>
<https://www.zs-hospital.sh.cn>

Endoscopic intramural cystogastrostomy for treatment of peripancreatic fluid collection: A viewpoint from a surgeon

Chen-Guo Ker

Specialty type: Gastroenterology and hepatology

Provenance and peer review: Invited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's scientific quality classification

Grade A (Excellent): 0
Grade B (Very good): B, B
Grade C (Good): C, C
Grade D (Fair): 0
Grade E (Poor): 0

P-Reviewer: Dedemadi G, Greece; Fujino Y, Japan; Shi RH, China

Received: October 31, 2023

Peer-review started: October 31, 2023

First decision: December 4, 2023

Revised: December 8, 2023

Accepted: January 16, 2024

Article in press: January 16, 2024

Published online: February 14, 2024



Chen-Guo Ker, Department of General Surgery, E-Da Hospital, I-Shou University, Kaohsiung 824, Taiwan

Corresponding author: Chen-Guo Ker, FACS, MD, PhD, Professor of Surgery, Department of General Surgery, E-Da Hospital, I-Shou University, No. 1 Yi-Da Rd, Yanchao District, Kaohsiung 824, Taiwan. ed112739@edah.org.tw

Abstract

Percutaneous or endoscopic drainage is the initial choice for the treatment of peripancreatic fluid collection in symptomatic patients. Endoscopic transgastric fenestration (ETGF) was first reported for the management of pancreatic pseudocysts of 20 patients in 2008. From a surgeon's viewpoint, ETGF is a similar procedure to cystogastrostomy in that they both produce a wide outlet orifice for the drainage of fluid and necrotic debris. ETGF can be performed at least 4 wk after the initial onset of acute pancreatitis and it has a high priority over the surgical approach. However, the surgical approach usually has a better success rate because surgical cystogastrostomy has a wider outlet (> 6 cm *vs* 2 cm) than ETGF. However, percutaneous or endoscopic drainage, ETGF, and surgical approach offer various treatment options for peripancreatic fluid collection patients based on their conditions.

Key Words: Pancreatitis; Pancreatic pseudocyst; Endoscopic cystogastrostomy; Surgical cystogastrostomy; Peripancreatic fluid collection; Fenestration for pancreatic cyst

©The Author(s) 2024. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: Endoscopic transgastric fenestration (ETGF) actually shares the same indications and procedures as surgical cystogastrostomy for the management of pancreatic pseudocysts. From a surgeon's viewpoint, both ETGF and surgical cystogastrostomy are used for producing a wide outlet orifice for the drainage. Endoscopic ultrasound-guided drainage and necrosectomy or ETGF has a high priority over the surgical approach. However, the surgical approach usually has a better success rate because surgical cystogastrostomy has a wider outlet than ETGF.

Citation: Ker CG. Endoscopic intramural cystogastrostomy for treatment of peripancreatic fluid collection: A viewpoint from a surgeon. *World J Gastroenterol* 2024; 30(6): 610-613

URL: <https://www.wjgnet.com/1007-9327/full/v30/i6/610.htm>

DOI: <https://dx.doi.org/10.3748/wjg.v30.i6.610>

TO THE EDITOR

A comment was raised after reading the article titled “Endoscopic transgastric fenestration *vs* percutaneous drainage for management of (peri) pancreatic fluid collections adjacent to gastric wall (with video)” by Zhang *et al*[1]. The clinical consequences of local complications in the natural course of acute pancreatitis are acute peripancreatic fluid collection (PPFC), pancreatic pseudocyst (PPC), acute necrotic collection (ANC), and walled-off necrosis (WON)[2,3]. Acute PPFC tends to be poorly walled-off and can leak into the retroperitoneum, peritoneal cavity, or a third space. Therefore, early interventions for these local complications are not recommended according to Japanese or American guidelines[4,5]. If percutaneous or endoscopic interventions for these local complications are necessary, it is necessary to wait until well-encapsulated formation, such as PPC or WON, is achieved. This condition usually occurs more than 4 wk after the onset of interstitial edematous pancreatitis to mature[3].

Percutaneous drainage (PD) or the endoscopic approach is the initial choice for the treatment of symptomatic patients [6]. However, most cystic spaces contain solid debris, which can occlude the tube, leading to impaired drainage. Hence, percutaneous or transmural drainage alone is often inadequate, and additional endoscopic or surgical necrosectomy is frequently required[7-10]. Surgical drainage is reserved only when PD is not successful[11]. Bleeding during management with endoscopic necrosectomy for ANC or WON may occur and result in catastrophic complications. Therefore, it is better to perform this procedure at referral centers with surgical backup[5].

Zhang *et al*[1] compared endoscopic transgastric fenestration (ETGF) with PD for the management of PPFC, and Liu *et al*[12] conducted the first ETGF in 2015. Actually, Varadarajulu *et al*[7] reported endoscopic ultrasound (EUS)-guided cystogastrostomy (same procedure as ETGF) for the management of PPS of 20 patients in 2008. From a surgeon’s viewpoint, ETGF performed by an endoscopist is a similar procedure to cystogastrostomy performed by a surgeon, and both are used for producing a wide outlet orifice for the drainage of fluid and necrotic debris between the cyst and stomach. Therefore, ETGF can be performed only under the condition of stringent adhesion between the posterior gastric and cystic walls. Additionally, ETGF has the same indications as surgical cystogastrostomy. Technically, the operator should first use EUS guidance to demonstrate presumably a resection line on the gastric wall at the site of maximal prominence of the PPC into the stomach to select the thinnest wall, thus minimizing adverse events.

As a novel development, therapeutic endoscopy can extend the dissection skills to perform ETGF to drain and clean the PPFC with well encapsulation where possible. What is already known about ETGF for PPC or WON is accepted as a minimally invasive alternative to the surgical approach. EUS guidance reduces the risk of perforation and hemorrhage. The probability of post-procedure complications and outcomes differs among the various techniques (Table 1). Varadarajulu *et al*[7] conducted a retrospective study to compare patients with uncomplicated PPC managed by surgical or EUS-guided cystogastrostomy. The results showed no significant differences in treatment success rates, complications, or re-interventions. Furthermore, costs were lower, and the post-procedure length of hospital stay was shorter for EUS-guided cystogastrostomy[7].

Table 1 Comparison of treatment procedures for pancreatic pseudocyst and walled-off necrosis

Procedure	Percutaneous cystic drainage	EUS-guided drainage with/without necrosectomy	ETGF ¹ with/without necrosectomy	Surgical cystogastrostomy ²
Variable				
Technique difficulty	Less	Less	High	High
Risk	Less	Less	Moderate	High
Re-insertion	Yes	Yes	-	-
Complications	Less	Less	Moderate	Less
Healing course	Long	Long	Short	Short
Cost	Less	Moderate	Moderate	High
Ref.	Johnson <i>et al</i> [11]; Akshintala <i>et al</i> [6]	Seicean <i>et al</i> [8]; McGuire <i>et al</i> [10]	Varadarajulu <i>et al</i> , 2008[7]; Suggs <i>et al</i> [14]; Liu <i>et al</i> [12]	Varadarajulu <i>et al</i> [7]; Suggs <i>et al</i> [14]

¹ETGF: Similar to the surgical procedure (cystogastrostomy).

²Cystogastrostomy performed using a traditional or laparoscopic approach.
ETGF: Endoscopic transgastric fenestration; EUS: Endoscopic ultrasound.

Generally, EUS-guided drainage and necrosectomy or ETGF has a high priority over the surgical approach. However, the surgical approach usually has a better success rate because surgical cystogastrostomy has a wider outlet (> 6 cm *vs* 2 cm) than ETGF[13,14]. Either ETGF or operative cystogastrostomy is indicated in cases where: (1) The cystic wall is well matured; and (2) the cyst is large enough to have a severe adhesion area with the gastric posterior wall instead of the early phase of PFFC without being walled-off. However, PD, endoscopic drainage, ETGF, and surgical approach offer various treatment options that can be tailored to the needs of individual patients with PFFC and the facilities of institutions.

FOOTNOTES

Author contributions: Ker CG performed literature search and evaluation, and manuscript preparation.

Conflict-of-interest statement: The author declares no conflict of interest for this article.

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: Taiwan

ORCID number: Chen-Guo Ker 0000-0003-4683-9365.

S-Editor: Qu XL

L-Editor: Wang TQ

P-Editor: Qu XL

REFERENCES

- Zhang HM, Ke HT, Ahmed MR, Li YJ, Nabi G, Li MH, Zhang JY, Liu D, Zhao LX, Liu BR. Endoscopic transgastric fenestration *versus* percutaneous drainage for management of (peri)pancreatic fluid collections adjacent to gastric wall (with video). *World J Gastroenterol* 2023; **29**: 5557-5565 [PMID: 37970477 DOI: 10.3748/wjg.v29.i40.5557]
- Banks PA, Bollen TL, Dervenis C, Gooszen HG, Johnson CD, Sarr MG, Tsiotos GG, Vege SS; Acute Pancreatitis Classification Working Group. Classification of acute pancreatitis--2012: revision of the Atlanta classification and definitions by international consensus. *Gut* 2013; **62**: 102-111 [PMID: 23100216 DOI: 10.1136/gutjnl-2012-302779]
- Zerem E, Kurtcehajic A, Kunosić S, Zerem Malkočević D, Zerem O. Current trends in acute pancreatitis: Diagnostic and therapeutic challenges. *World J Gastroenterol* 2023; **29**: 2747-2763 [PMID: 37274068 DOI: 10.3748/wjg.v29.i18.2747]
- Yokoe M, Takada T, Mayumi T, Yoshida M, Isaji S, Wada K, Itoi T, Sata N, Gabata T, Igarashi H, Kataoka K, Hirota M, Kadoya M, Kitamura N, Kimura Y, Kiriya S, Shirai K, Hattori T, Takeda K, Takeyama Y, Sekimoto M, Shikata S, Arata S, Hirata K. Japanese guidelines for the management of acute pancreatitis: Japanese Guidelines 2015. *J Hepatobiliary Pancreat Sci* 2015; **22**: 405-432 [PMID: 25973947 DOI: 10.1002/jhbp.259]
- Baron TH, DiMaio CJ, Wang AY, Morgan KA. American Gastroenterological Association Clinical Practice Update: Management of Pancreatic Necrosis. *Gastroenterology* 2020; **158**: 67-75.e1 [PMID: 31479658 DOI: 10.1053/j.gastro.2019.07.064]
- Akshintala VS, Saxena P, Zaheer A, Rana U, Hutfless SM, Lennon AM, Canto MI, Kalloo AN, Khashab MA, Singh VK. A comparative evaluation of outcomes of endoscopic *versus* percutaneous drainage for symptomatic pancreatic pseudocysts. *Gastrointest Endosc* 2014; **79**: 921-8; quiz 983.e2, 983.e5 [PMID: 24315454 DOI: 10.1016/j.gie.2013.10.032]
- Varadarajulu S, Lopes TL, Wilcox CM, Drelichman ER, Kilgore ML, Christein JD. EUS *versus* surgical cyst-gastrostomy for management of pancreatic pseudocysts. *Gastrointest Endosc* 2008; **68**: 649-655 [PMID: 18547566 DOI: 10.1016/j.gie.2008.02.057]
- Seicean A, Pojoga C, Rednic V, Hagiuc C, Seicean R. Endoscopic ultrasound drainage of pancreatic fluid collections: do we know enough about the best approach? *Therap Adv Gastroenterol* 2023; **16**: 17562848231180047 [PMID: 37485492 DOI: 10.1177/17562848231180047]
- Working Group IAP/APA Acute Pancreatitis Guidelines. IAP/APA evidence-based guidelines for the management of acute pancreatitis. *Pancreatol* 2013; **13**: e1-15 [PMID: 24054878 DOI: 10.1016/j.pan.2013.07.063]
- McGuire SP, Maatman TK, Zyromski NJ. Transgastric pancreatic necrosectomy: Tricks of the trade. *Surg Open Sci* 2023; **14**: 1-4 [PMID: 37599671 DOI: 10.1016/j.sopen.2023.06.003]
- Johnson MD, Walsh RM, Henderson JM, Brown N, Ponsky J, Dumot J, Zuccaro G, Vargo J. Surgical *versus* nonsurgical management of pancreatic pseudocysts. *J Clin Gastroenterol* 2009; **43**: 586-590 [PMID: 19077728 DOI: 10.1097/MCG.0b013e31817440be]
- Liu BR, Song JT, Zhang XY. Video of the Month: Emergency Endoscopic Fenestration for Treatment of a Recurrence Pancreatic Pseudocyst. *Am J Gastroenterol* 2015; **110**: 644 [PMID: 25942297 DOI: 10.1038/ajg.2015.13]
- van Brunshot S, van Grinsven J, Voermans RP, Bakker OJ, Besselink MG, Boermeester MA, Bollen TL, Bosscha K, Bouwense SA, Bruno

MJ, Cappendijk VC, Consten EC, Dejong CH, Dijkgraaf MG, van Eijck CH, Erkelens GW, van Goor H, Hadithi M, Haveman JW, Hofker SH, Jansen JJ, Laméris JS, van Lienden KP, Manusama ER, Meijssen MA, Mulder CJ, Nieuwenhuis VB, Poley JW, de Ridder RJ, Rosman C, Schaapherder AF, Scheepers JJ, Schoon EJ, Seerden T, Spanier BW, Straathof JW, Timmer R, Venneman NG, Vleggaar FP, Witteman BJ, Gooszen HG, van Santvoort HC, Fockens P; Dutch Pancreatitis Study Group. Transluminal endoscopic step-up approach *versus* minimally invasive surgical step-up approach in patients with infected necrotising pancreatitis (TENSION trial): design and rationale of a randomised controlled multicenter trial [ISRCTN09186711]. *BMC Gastroenterol* 2013; **13**: 161 [PMID: 24274589 DOI: 10.1186/1471-230X-13-161]

- 14 **Suggs P, NeCamp T, Carr JA.** A Comparison of Endoscopic Versus Surgical Creation of a Cystogastrostomy to Drain Pancreatic Pseudocysts and Walled-Off Pancreatic Necrosis in 5500 Patients. *Ann Surg Open* 2020; **1**: e024 [PMID: 37637446 DOI: 10.1097/AS9.0000000000000024]



Published by **Baishideng Publishing Group Inc**
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA
Telephone: +1-925-3991568
E-mail: office@baishideng.com
Help Desk: <https://www.f6publishing.com/helpdesk>
<https://www.wjgnet.com>

