

INTRODUCTION

- > Symptomatic walled-off necrosis (WON) after acute pancreatitis (AP) can be treated endoscopically through an endoscopic ultrasound (EUS) guided transmural drainage.
- > Still not clear whether the use of lumen-apposing metal stents (LAMSs) instead of plastic stents might lead to better clinical outcomes.

AIM

- > Comparing clinical and technical outcomes between LAMSs vs plastic stent EUS-guided transmural drainage of WON after AP

METHOD

- PROSPERO registration:** CRD42024523165, PRISMA guidelines
- Literature search:** Embase, PubMed, Scopus, Google scholar, inception October 2024
- Study selection:**
- > Inclusion criteria:
 - Randomized controlled trials (RCTs), full text
 - Direct comparison of technical and clinical outcomes between LAMS and plastic stent
 - > 18 years old
 - > Exclusion criteria
 - Not RCTs
 - No direct comparison between the 2 techniques
 - Not on humans
 - Not in English

Primary outcomes:

- > Long-term (>1 month) clinical success

Secondary outcomes:

- > Short term (<1 month) clinical success, technical success, number of direct endoscopic necrosectomies (DEN), number of interventions, need for surgery, mortality, bleeding, stent migration, procedure duration, length of hospital stay, overall adverse events, stent-related adverse events, sepsis, recurrence, percutaneous drainage (PCD) placement.

Quality assessment:

- > Risk of Bias 2 (Rob2) tool

Trial sequential analysis:

- > DEN need: RIS 4412 patients
- > Long term clinical success: RIS 23609 patients

Table 1: outcome measures

Outcomes	Arm	Number of studies	Number of patients	Risk Ratio (95% CI)	Heterogeneity (I ²)
Technical success	Metal	6	177	1.00 (0.98, 1.03)	0%
	Plastic		175	p= 0.80	
Short term clinical success	Metal	4	126	1.09 (0.85, 1.40)	71%
	Plastic		124	p= 0.50	
Long term clinical success	Metal	5	150	1.02 (0.92, 1.13)	47%
	Plastic		142	p= 0.66	
DEN	Metal	6	177	0.94 (0.63, 1.37)	7%
	Plastic		175	p= 0.72	
Need for surgery	Metal	6	177	1.75 (0.46, 6.68)	0%
	Plastic		175	p= 0.41	
Mortality	Metal	6	177	0.91 (0.32, 2.62)	0%
	Plastic		175	p= 0.86	
Bleeding	Metal	6	177	1.26 (0.51, 3.11)	0%
	Plastic		175	p= 0.62	
Stent migration	Metal	6	176	0.75 (0.28, 2.03)	0%
	Plastic		183	p= 0.57	
Adverse events	Metal	6	177	0.82 (0.50, 1.34)	43%
	Plastic		175	p= 0.42	
PCD placement	Metal	5	144	0.72 (0.24, 2.24)	62%
	Plastic		144	p= 0.58	
Recurrence	Metal	4	131	1.42 (0.57, 3.53)	0%
	Plastic		121	p= 0.45	
Sepsis	Metal	6	177	0.45 (0.24, 0.84)	0%
	Plastic		175	p= 0.01	
Stent-related adverse events	Metal	6	175	0.80 (0.42, 1.51)	49%
	Plastic		175	p= 0.48	
Procedure duration	Metal	6	177	-12.20 (-19.30, -5.10)	96%
	Plastic		175	p= 0.0008	
Hospital stay	Metal	5	154	-0.14 (-7.04, 6.76)	98%
	Plastic		152	p= 0.97	
Total number of interventions	Metal	5	154	0.01 (-0.16, 0.18)	52%
	Plastic		152	p= 0.90	
Total number of DEN	Metal	5	131	0.95 (-2.14, 4.04)	100%
	Plastic		129	p= 0.55	

CONCLUSIONS

- > Except for procedure duration (p=0.0008) and post-procedure sepsis (p=0.01), no difference in any other outcome parameter
- > Long term clinical success: similar in both metal and plastic stents
- > Advantages of shorter procedural duration could translate to the preferential use of metal stents in sicker, infected cohort of WON patients

RESULTS

- > 3456 articles were screened
- > SIX RCTs : selected
- > Total number of patients = 352 (metal stent: 177; plastic stent: 175)
- > Countries: India (2) ; USA (1); Spain (1); Denmark (1); South Korea (1)
- > Study period: February 2016 to May 2023

Figures 1 and 2: significant outcome measures (sepsis and procedural duration)

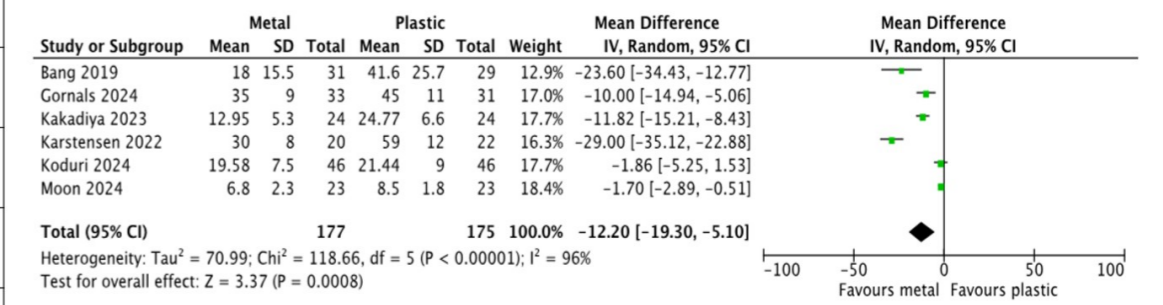
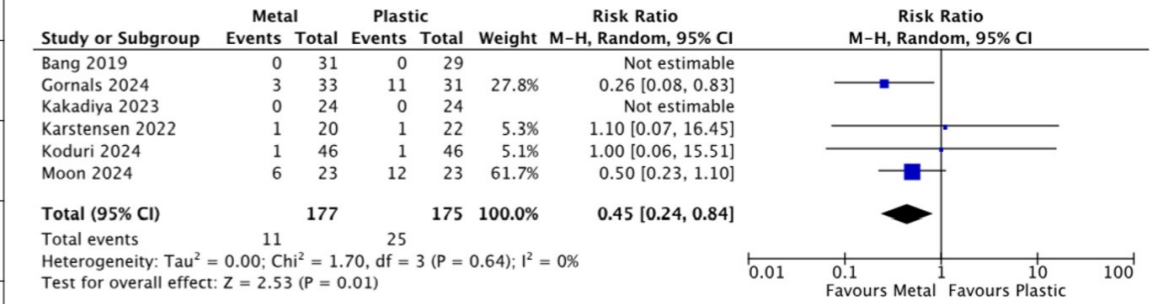
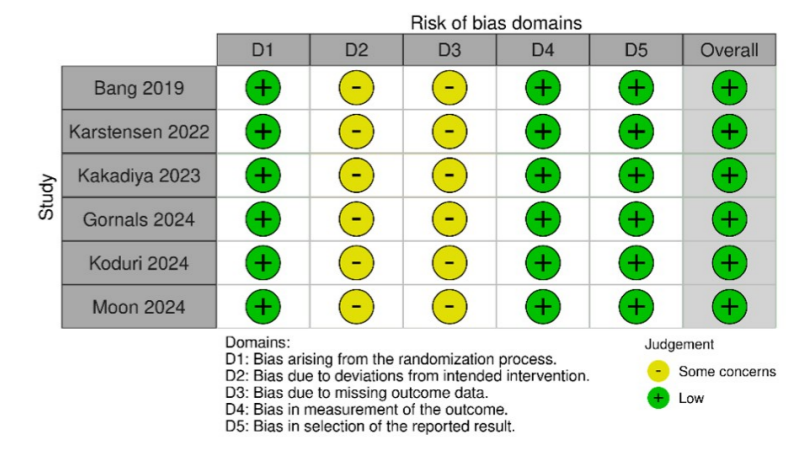


Figure 3: robvis tool of the 6 RCTs



CONTACT INFORMATION

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