

Early (<4 Weeks) Versus Standard (≥ 4 Weeks) Endoscopic Drainage of Pancreatic Walled-Off Fluid Collections: A Systematic Review and Meta-analysis

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THE NEED

- Previous studies have demonstrated that the ideal time for drainage of walled off pancreatic fluid collections is 4-6 weeks after its development.
- However, some pancreatic collections, including pancreatic walled-off necrosis (WON), require earlier drainage.
- Nevertheless, the optimal timing of the first intervention is unclear, and consensus data are sparse.
- The aim of this study was to evaluate clinical outcomes and safety of endoscopic ultrasound (EUS) - guided drainage of pancreatic fluid collections < than 4 weeks after its development compared to \geq 4 weeks after its development.

METHODS

- Search strategies were developed for PubMed, EMBASE, and Cochrane Library databases from inception.
- Outcomes of interest included technical success defined as successful endoscopic placement of LAMS, clinical success defined as reduction in cystic collection size, and procedure-related adverse events.
- A random effects model was used for analysis and results were expressed as odds ratio (OR) along with 95% confidence interval (CI).

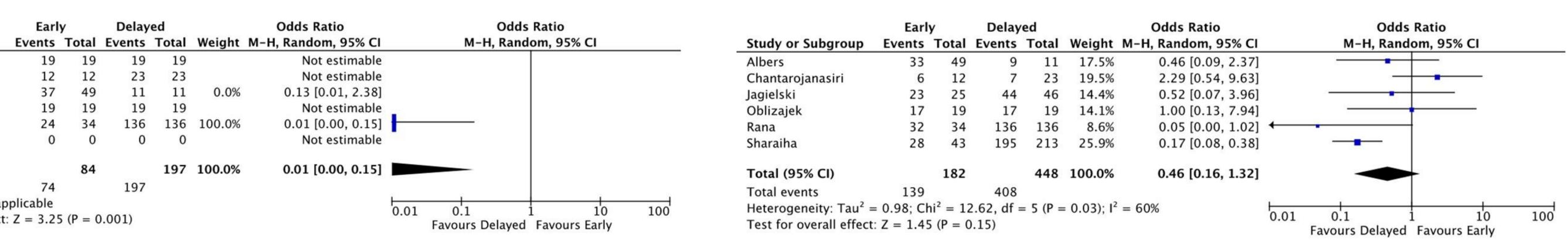
Study or Subgroup Albers Chantarojanasir 12 Jagielski Oblizajek Rana Sharaiha

Total (95% CI) Total events Heterogeneity: Not applicable Test for overall effect: Z = 3.25 (P = 0.001)

	Earl	У	Delay	/ed		Odds Ratio		Odds Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M–H, Random, 95% Cl
Chantarojanasiri	3	12	5	23	13.5%	1.20 [0.23, 6.19]		
Jagielski	13	25	32	46	35.9%	0.47 [0.17, 1.29]		
Oblizajek	4	19	6	19	16.8%	0.58 [0.13, 2.51]		
Sharaiha	5	43	21	213	33.8%	1.20 [0.43, 3.39]		
Total (95% CI)		99		301	100.0%	0.76 [0.42, 1.39]		-
Total events	25		64					
Heterogeneity: Tau ² =	= 0.00; Cl	$hi^2 = 2.$	04, df =	3 (P =	0.56 ; $I^2 =$	= 0%		
Test for overall effect	z = 0.89	9 (P = 0).37)				0.01	0.1 1 10 100 Favours Early Favours Delayed

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Compared to early drainage (< 4 weeks), endoscopic drainage of pancreatic fluid collections is technically more efficacious when performed at least 4 weeks after development, with a shorter hospital length of stay.



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	Earl	y	Delay	/ed		Odds Ratio		Odds Ratio
lbgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Random, 95% CI
	4	49	2	11	31.2%	0.40 [0.06, 2.52]		
nasiri	1	12	1	23	17.3%	2.00 [0.11, 35.09]		
	1	25	2	46	21.7%	0.92 [0.08, 10.64]		
	0	19	1	19	14.1%	0.32 [0.01, 8.26]		• • • • • • • • • • • • • • • • • • •
	2	34	0	136	15.6%	21.00 [0.98, 448.04]		• • •
CI)		139		235	100.0%	1.14 [0.29, 4.48]		
5	8		6					
ity: Tau ² = rall effect				4 (P =	0.23); I ² :	= 28%	0.01	0.1 1 10 100
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Identification	Records identified from Databases (n=707): Embase = 135 Medline: 205 Scopus: 95 Cochrane: 272
Screening	Reports assessed for eligibility (n = 562)
Included	Studies included in review and analysis (n = 6)

- 182 patients (28.9%) were enrolled in the early drainage cohort and 448 (71.1%) patients in the standard drainage cohort.
- The mean fluid collection size was 143.4 ± 18.8 mm for the early cohort vs 128 ± 19.7 mm for the standard cohort.
- Overall, technical success favored standard drainage over early drainage. Clinical success did not favor either standard drainage or early drainage.
- With regards to adverse events, there was no statistically significant difference in overall adverse events or mortality.
- Hospital stay was longer for patients undergoing early drainage compared to standard drainage (23.7 vs 16.0 days, respectively).