

Delayed Removal Of Biflanged Metal Stent In Patients With Pancreatic Fluid Collection: Safety And Efficacy

Asari, Sana B.¹, Praveer Rai¹, Ashuman Elhence¹

1. Department of Gastromedicine, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, Uttar Pradesh, India.

INTRODUCTION

- ❖ Pancreatic fluid collections (PFCs), including walled-off necrosis (WON) and pseudocysts, are complications of pancreatitis that may require minimally invasive drainage with metal stents.
- ❖ While stent removal timing remains debated, early removal minimizes risks such as delayed bleeding or buried stent syndrome.
- ❖ However, delayed removal may be necessary for prolonged drainage.
- ❖ Emerging evidence suggests that removal beyond the recommended four-week duration may still be safe.

AIM

To evaluate the safety and efficacy of delayed stent removal in PFC patients and identify predictors of adverse events.

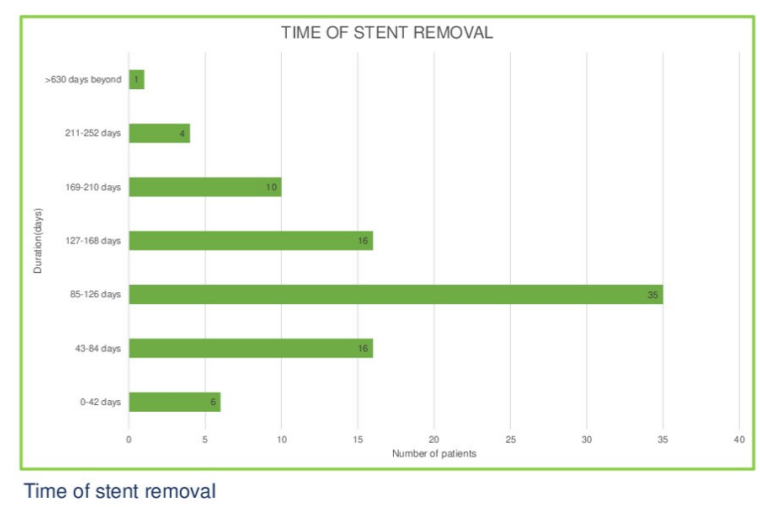
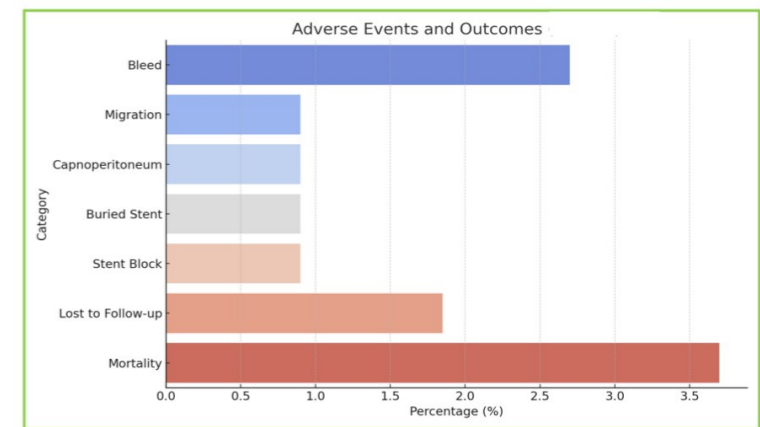
METHOD

- ❖ Retrospective study included 108 patients who underwent endoscopic ultrasound-guided drainage of PFCs with biflanged metal stents (BFMS) between October 2019 and October 2024.
- ❖ Patients with symptomatic WON (less than 50% necrotic content) were included.
- ❖ Data on demographics, PFC characteristics, procedural details, and adverse events (AEs) were collected.
- ❖ Outcome measures:
 - Rate of adverse events
 - Type and severity of AEs
 - Recurrence of PFCs.
 - Technical success and clinical success
- ❖ BFMS was removed after imaging confirmed no significant residual collection and ruling out ductal abnormalities.
- ❖ In cases of disconnected pancreatic duct syndrome (DPDS), BFMS was replaced with a plastic stent for prolonged drainage.

RESULTS

- ❖ The study achieved a technical success rate of 100% and a clinical success rate of 92.5%.
- ❖ **Adverse events (AEs)** were reported in **6.4%**.
- ❖ Most AEs were associated with larger collections (>10 cm).
- ❖ Delayed stent removal beyond four weeks did not increase the incidence of AEs.
- ❖ Recurrence of PFC occurred in 6.8%, primarily due to ductal abnormalities such as DPDS (4.54%) and pancreatic duct leaks (2.27%).
- ❖ WON was prevalent in 82.4% of cases, often requiring multiple necrosectomies (21.4%) and adjunctive drainage techniques.
- ❖ Endoscopic management effectively reduced recurrence risk.

VARIABLES	NUMBER OF PATIENT
DEMOGRAPHICS	
Total number of patients	108
Male	79(73.1%)
Median age(years)	42(15-69)
Pseudocyst	19(16.9%)
WON	89(82.4%)
SVT/PVT	22(20.3%)
Moderate-severe pancreatitis	82(75.9%)
Severe pancreatitis	22(20.3%)
Concomitant PCD requirement, n(%)	17(15.7%)
OUTCOMES	
Stent removal by endoscopy, n(%)	88(86.2%)
Median duration of stent removal(days)	114(87-158)
Spontaneous extrusion in feces	14(13.7%)



CONCLUSIONS

- ❖ This study supports the safety of delayed stent removal beyond the conventional four-week guideline when clinically indicated, as no significant increase in adverse events or recurrence was observed.
- ❖ The findings underscore the importance of individualized stent management based on the complexity of pancreatic fluid collections and patient specific factors, contributing to a more flexible, patient-centric approach to stent removal timing.

REFERENCES

1. Stigliano S, et al. Timing of lumen-apposing metal stents removal in pancreatic fluid collections: Could we go beyond? *Pancreatology*. 2024;24(2):189–195.
2. Willems P, Esmail E, Paquin S, Sahai A. Safety and efficacy of early versus late removal of LAMS for pancreatic fluid collections. *Endosc Int Open*. 2024 Feb 28;12(2):E317–E323.
3. Nayar M, Leeds JS, UK & Ireland LAMS Collaborative, Oppong K. Lumen-apposing metal stents for drainage of pancreatic fluid collections: does timing of removal matter? *Gut*. 2022;71(5):850–853.

CONTACT INFORMATION

sanaasari@gmail.com

