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Endoscopic ultrasound guided gastroenterostomy versus Enteral stenting in the palliation of malignant gastric outlet obstruction: short- and long-term analysis of clinical outcomes.

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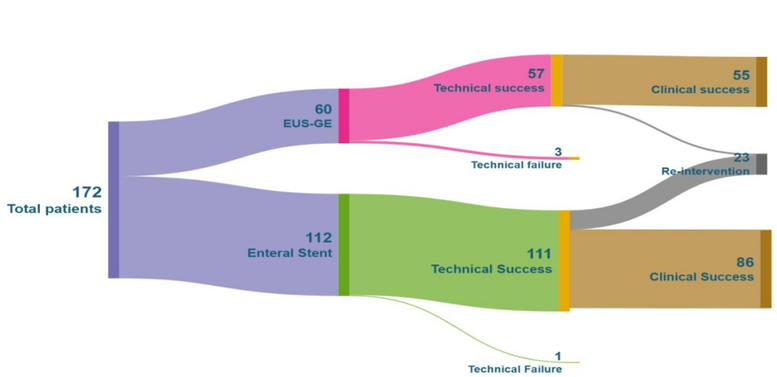
INTRODUCTION

- Gastric outlet obstruction (GOO) frequently complicates upper GI malignancies, leading to nausea, vomiting, and poor oral intake, necessitating effective management strategies.
- Endoscopic stenting (SEMS) and EUS-guided gastroenterostomy (EUS-GE) are minimally invasive options for palliation of GOO
- Comparative studies on EUS-GE and endoscopic stenting are limited, particularly in the Indian context with limited long term data comparing oncologic outcomes.
- We aimed to compare outcomes of ES and EUS-GE in the short and long term

AIM & METHODS

- We aim to compare outcomes of EUS-GE with ES in a large cohort of patients from a tertiary care hospital in western India via retrospective review of patients who underwent either ES or EUS-GE between 1st January 2021 and 31st January 2024.
- **Study Variables : demographics, comorbidities, primary malignancy, site of GOO, pre-procedure GOO scores, technical details of procedures, post-procedure oral intake, and follow-up data at 2weeks, 3months and 6months.**
- Primary outcomes measured were clinical success rates (defined by 2 point increase in GOOSS) and Overall Survival; secondary outcomes included adverse events, reintervention rates, reintervention-free survival,

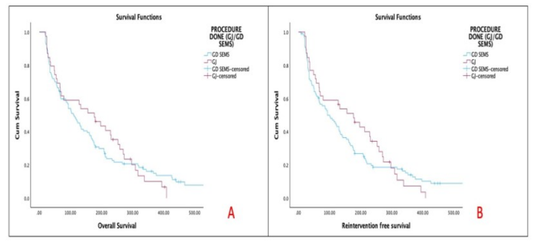
RESULTS



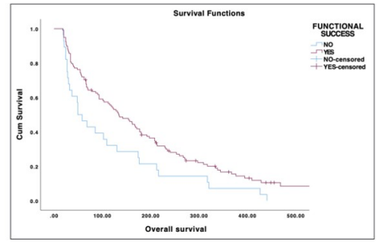
- Technical success was achieved in 57/60 (95.08%) for EUS-GE and 111/112 (99.09%) for ES, with no significant difference between groups; failures in EUS-GE involved stent mal-deployment.
- Clinical success higher in EUS-GE group as compared to ES (94.7% vs 77.5%, p=0.004)
- Reintervention was higher in the ES group (18.75% vs 3.3%, p=0.005)
- Adverse events comparable between groups, primarily abdominal pain.
- Reintervention-free survival was similar (ES: 93 days, EUS-GE: 177 days, p=0.581), and overall survival showed no significant difference (ES: 112 days, EUS-GE: 177 days, p=0.787).
- In type 3 stenosis, EUS-GE demonstrated better survival (p=0.030), while those without clinical success had significantly lower overall survival (49 days vs. 134 days, p=0.013).

	EUS-GE (n = 60)	Enteral stent (n = 112)	p value
Mean age (years)	54.52 ± 12.75	53.63 ± 12.16	0.658
Gender (M : F)	32:28	63:49	0.714
Baseline ECOG	ECOG 1 - 39 ECOG 2 – 18 ECOG 3 - 3	ECOG 1 - 74 ECOG 2 – 28 ECOG 3 - 10	0.244
Baseline GOOSS	Score 0 - 35 Score 1 – 25	Score 0 – 43 Score 1 - 69	0.012
Primary malignancy	Pancreas – 21 Gall bladder - 15 Stomach - 10 Periampullary - 09 Others – 10	Pancreas - 26 Gall bladder - 30 Stomach - 30 Periampullary - 13 Others – 13	0.394
Site of obstruction	Type I - 35 Type II - 20 Type III – 4	Type I - 59 Type II - 49 Type III – 4	0.226
Ascites	6 (10%)	8 (7.1%)	0.514

	EUS-GE	Enteral Stent	p value
Technical Success	57/60 (95%)	111/112 (99.09%)	0.123
Primary Outcomes			
Clinical Success (at 2 weeks)	55/57 (94.7%)	86/111 (77.5%)	0.004
Overall Survival	177 days [95%CI 93.55-260.44]	112 days [95%CI 81.56-142.43]	0.787
Secondary Outcomes			
Adverse events	5/60	3/112	0.263
Re-intervention needed	2 (3.3%)	21 (18.75%)	0.005
Reintervention free survival	177 days [95%CI 96.89-257.10]	93 days [95%CI 55.65-130.34]	0.581



NO DIFFERENCE IN OVERALL SURVIVAL AND REINTERVENTION FREE SURVIVAL BETWEEN ES AND EUS-GE



THOSE WITH CLINICAL SUCCESS HAVE BETTER OVERALL SURVIVAL

CONCLUSIONS

1. **First large comparative study from India evaluating clinical outcomes of EUS-GE versus ES for mGOO, provided more robust evidence to support EUS-GE even in the short term, showing better oncologic outcomes in those who achieve clinical success**
2. The retrospective design and non-randomized nature may introduce bias, and most procedures were performed by a single operator, highlighting the importance of expertise in EUS interventions.
3. EUS-GE is a safe and effective primary modality for palliation of gastric outlet obstruction in patients with malignant obstruction, offering superior outcomes compared to ES when performed by skilled operators.

ACKNOWLEDGEMENTS

None