

# A MODIFIED INTERRUPTED MATTRESS SUTURE IN ESOPHAGOGASTRIC ANATOMISES TO REDUCE THE CHANCES OF LEAK AFTER ESOPHAGECTOMY FOR CARCINOMA OF ESOPHAGUS.

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## INTRODUCTION

- **Anastomotic leak** is one of the most feared complication of esophagectomy.
- Both **hand sewen and stapled** techniques have been described for anastomosis between the esophagus and gastric pouch, aiming to reduce the risk of leakage.
- Post esophagectomy **9-14%** anastomotic leak rate has been reported in international literature.

## OBJECTIVE

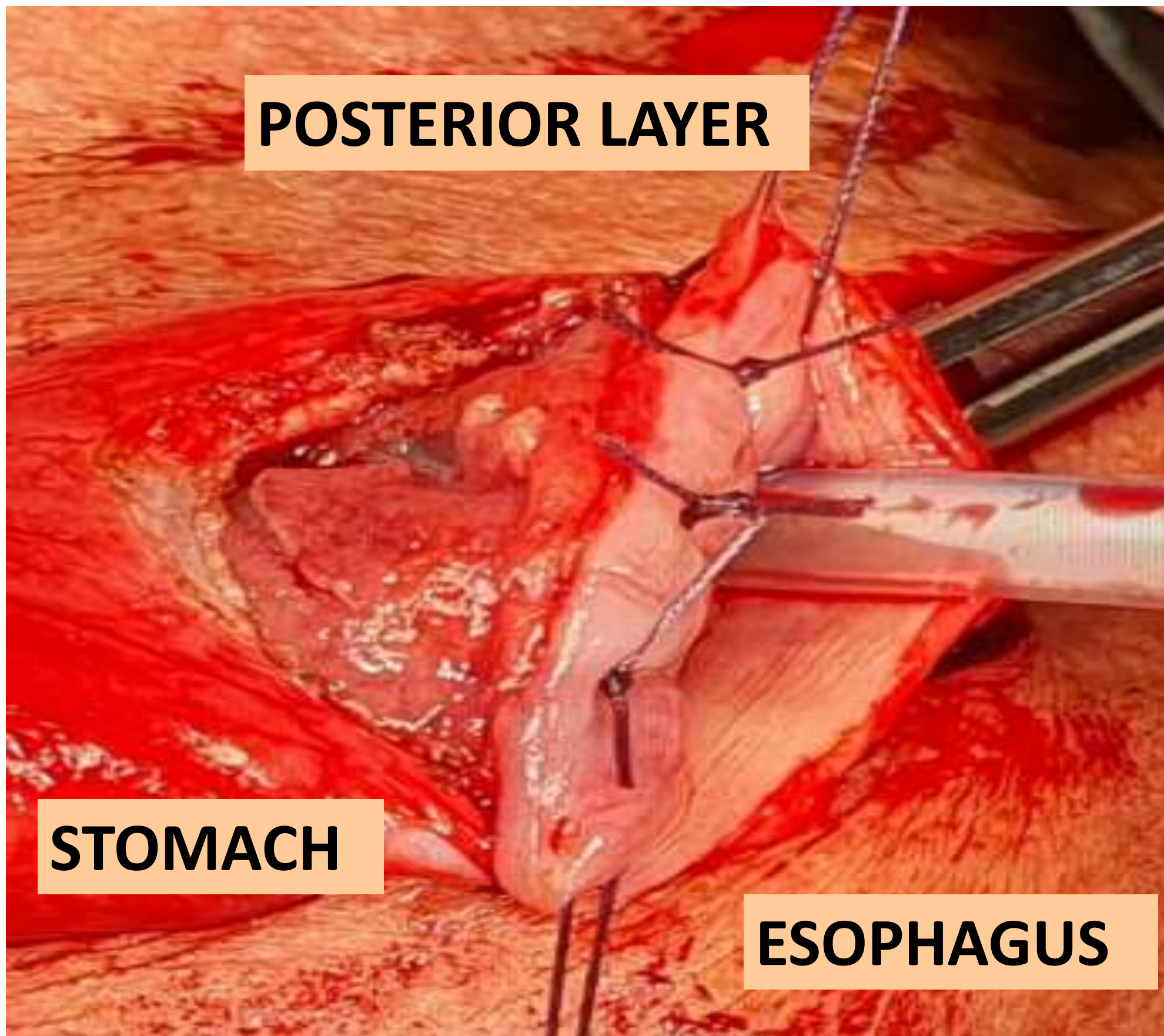
- The **aim** of this study to evaluate the efficacy of **modified interrupted mattress suture** in esophago-gastric anastomosis by assessing the frequency of anastomotic leak.

## METHODS

- A Prospective observational study was conducted from September 2023 to June 2025.
- All those patients that had undergone trans hiatal, McKeown or Ivor Lewis esophagectomy.
- All the patients received neoadjuvant chemotherapy.
- Surgery was performed by a single surgeon.

## TECHNICAL DESCRIPTION

- Full thickness bite of esophagus.
- Full thickness bite of stomach.
- Needle is then rotated
- A bite of mucosa on the posterior wall or serosa on the anterior wall of the stomach is taken.
- Then, a bite of mucosa on the posterior wall or muscularis on the anterior wall of the esophagus is taken.
- suture is then tied.
- Knots of posterior layer lies inside and that of the anterior layer on outside.

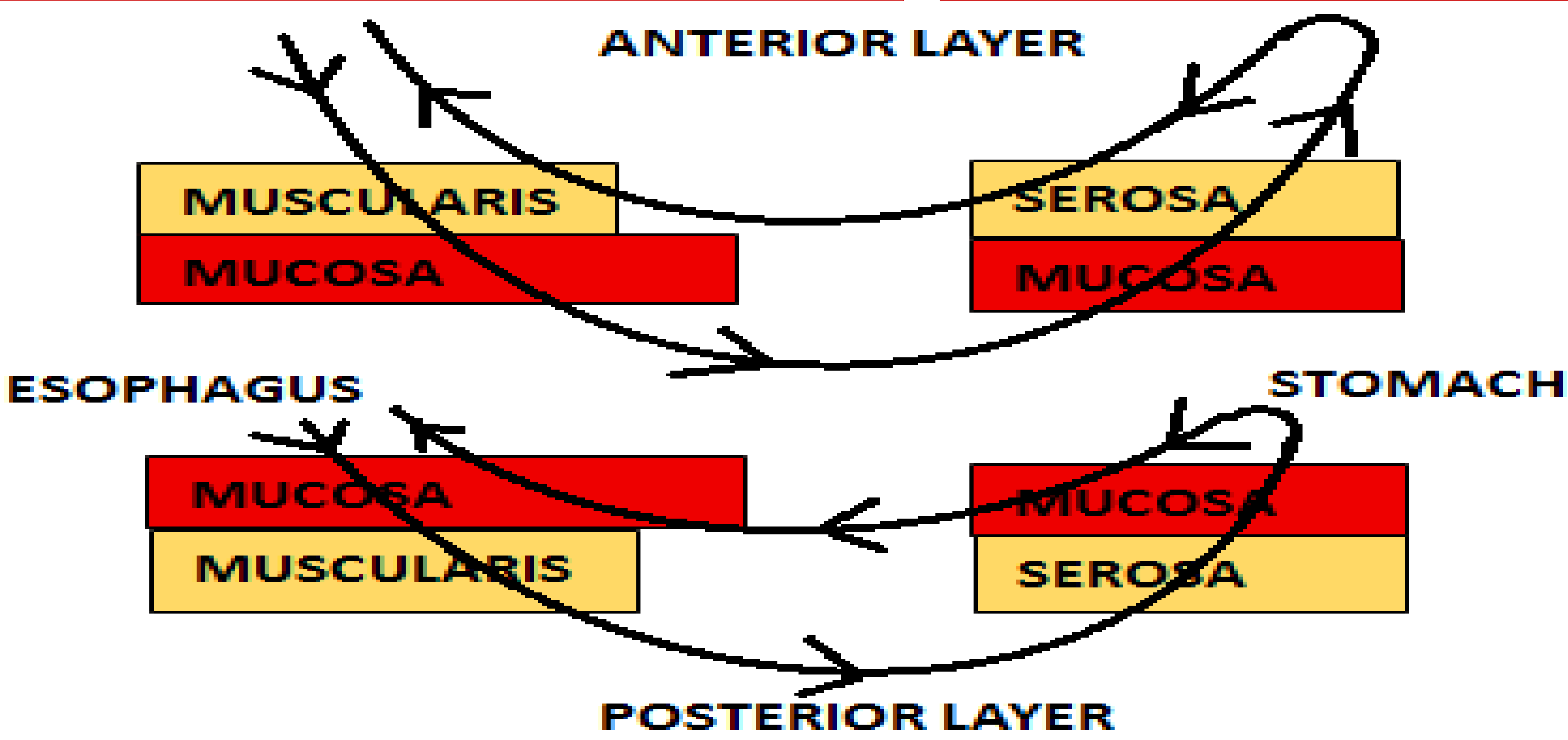


## INTERRUPTED NATURE ( vs. CONTINUOUS)

- ❖ Reduces constriction
- ❖ Improves circulation

## VERTICAL MATTRESS FEATURE:

- ❖ Close tissue approximation
- ❖ Enhanced closure strength



## RESULTS

- ✓ Total 103 patients with mean age 56.2 +\_ 9.01 years.
- ✓ 62 were males and 41 were females.
- ✓ Squamous cell carcinoma in 72 out of 103. Rest were of adenocarcinoma type.
- ✓ Leak rate in our study is **0.9%**.
- ✓ **Only 1 out of 103** patients reported leak on 5th post op day.

## CONCLUSION

The **modified interrupted mattress suture** technique described in this study is a **safe hand sewn anastomosis** technique in esophagectomy and its safety is validated by **lower** anastomotic leak rate in comparison to reported in international literature and **comparable** to national data.

