

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

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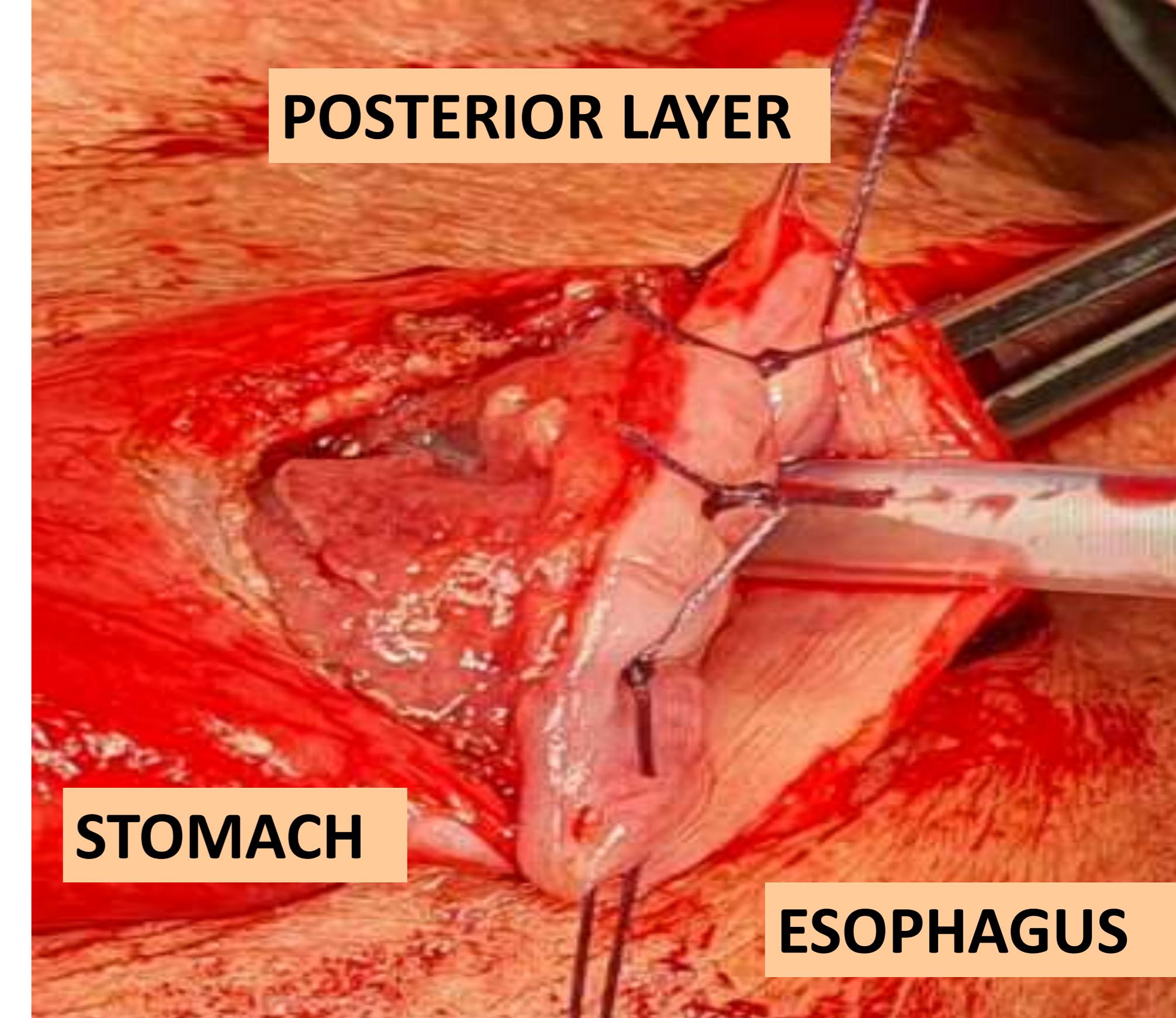
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## INTRODUCTION

- Anastomotic leak is one of the most feared complication of esophagectomy.
- Both hand sewn 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.

## 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.

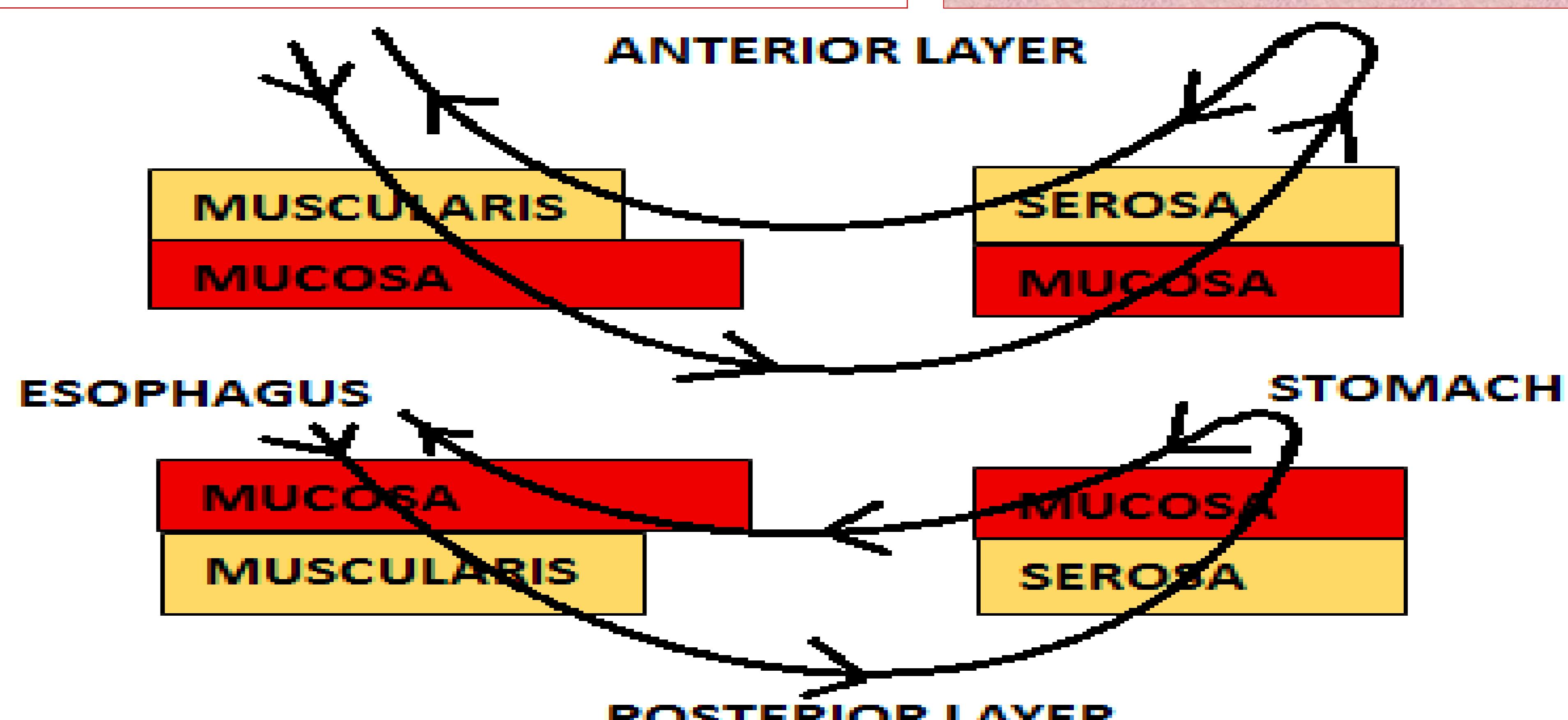


## INTERRUPTED NATURE (vs. CONTINUOUS)

- Reduces constriction
- Improves circulation

## VERTICAL MATTRESS FEATURE:

- Close tissue approximation
- Enhanced closure strength



## 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.

## 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.