Does Gastric pH Have a Role in Corrosive Antral Stricture Healing?
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BACKGROUND AND AIM

- Ingested acids pool in the prepyloric area in response to corrosive-induced pylorospasm
- Prolonged contact with prepyloric mucosa results in stricture - Pre-pyloric/ Antrum/ Body/ Pyloroduodenal area
- Delay in surgery for corrosive antral stricture is due to delay in the healing of corrosive induced gastric injury. The reason for this delayed healing remains unclear
- Aim - To establish:
  1. Delayed healing of corrosive induced antral injury is due to persistent intrinsic gastric acid secretion
  2. Reducing the intrinsic gastric acid secretion hastens the healing of the ulcer so that early surgery can be planned

MATERIALS AND METHODS

- Prospective study
- January 2021 onwards
- 6 patients with isolated antral stricture post corrosive ingestion in a single centre
- Pre operative evaluation
  - Endoscopy – Initial injury assessment –ZARGAR Scoring
  - Gastric Aspirate pH measured - Before & After Proton Pump Inhibitor administration for 1 week
- Definitive surgery for antral stricture
  - Antrectomy & Reconstruction (Billroth I, II Anastomosis)
- Preoperative parameters compared with historic controls

1. REFERENCE

RESULTS

<table>
<thead>
<tr>
<th>Age/Sex</th>
<th>PIM Post OGD</th>
<th>Pre PPT OGD</th>
<th>Zargar</th>
<th>Time since injury</th>
<th>Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2B Antral Stricture, GOO, gastritis</td>
<td>3.80</td>
<td>2</td>
<td>3A</td>
<td>3.00</td>
<td>2</td>
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<tr>
<td>2 3A Antral Stricture, GOO, erosions</td>
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<td>3A</td>
<td>2.95</td>
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<tr>
<td>3 3A Antral Stricture, GOO, pan-gastritis</td>
<td>3.20</td>
<td>2</td>
<td>3A</td>
<td>3.10</td>
<td>2</td>
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<td>4.18</td>
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<td>2.21</td>
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1. Persistent intrinsic gastric acid secretion causes delayed healing of corrosive induced antral injury. We hypothesise that:
   - Even in corrosive antral stricture, intrinsic acid secretion remains intact, causing persistent injury
   - This is further aggravated by the non buffering of acid by due to absent oral intake
2. Suppression of the intrinsic gastric acid secretion hastens the healing of the ulcer facilitating early surgery

CONCLUSION

- Early surgery correction is feasible and safe if patients with isolated gastric stricture following acid corrosion injury are carefully selected. All patients in our study recovered early, with a low morbidity rate.
- Early definitive treatment of gastric outlet obstruction can give patients a better quality of life, avoid a second operation in about 80% of them and save operative time in those who need a second operation for final esophageal reconstruction.