EXPLORING PREOPERATIVE CLINICAL PROFILES AND 24-HOUR PH-IMPEDANCE FOR ANTI-REFLUX SURGERY IN PATIENTS WITH OVERWEIGHT OR OBESITY

• Harold Guerrero¹, L Poggi M, A Rodríguez M, R Rojas, C Yu, D Romani, L Poggi G

1 Member of CIFCAD (Center for Research in Physiology and Surgery of the Digestive System), Peru Department of Surgery, Clínica Anglo Americana, Peru Member of APCBEM, Peru Professor at Universidad Peruana Cayetano Heredia, Peru Member of IFSO

Contact information: harold.guerrero.m@icloud.com +51961537062



Centro de Investigación de Fisiología y Cirugía del Aparato Digestivo





Recent advances in clinical practice

Updates to the modern diagnosis of GERD: Lyon consensus 2.0



UNPROVEN GERD

ENDOSCOPY, WIRELESS pH STUDY, 24 HOUR pH OR pH IMPEDANCE, HRM off therapy

PROVEN GERD ENDOSCOPY, 24 HOUR pH IMPEDANCE on therapy

ENDOSCOPY

pH or pH-IMPEDANCE

HRM

pH-IMPEDANCE

CONCLUSIVE EVIDENCE FOR PATHOLOGIC REFLUX LA grades B, C&D esophagitis Biopsy proven Barrett's mucosa Peptic esophageal stricture AET>6% on 24 hour studies AET>6% on ≥2 days on wireless studies LA grades B, C&D esophagitis Peptic esophageal stricture AET>4%, reflux episodes>80

BORDERLINE OR INCONCLUSIVE EVIDENCE

LA grade A esophagitis

AET 4-6% on 24 hour studies

AET 4-6% on ≥2 days on

wireless studies

Total reflux episodes 40-80/day

LA grade A esophagitis
AET 1-4%
Total reflux episodes 40-80/day
MNBI 1500-2500 Ω

ADJUNCTIVE OR SUPPORTIVE EVIDENCE* Hiatus hernia
Histopathologic scoring systems
Electron microscopy of biopsies

Reflux-symptom association Total reflux episodes >80/day MNBI<1500 Ω

Hypotensive EGJ Hiatus hernia IEM/absent contractility Hiatus hernia MNBI <1500 Ω Reflux symptom association

EVIDENCE AGAINST PATHOLOGIC REFLUX AET<4% each day of study**
Total reflux episodes<40/day
MNBI>2500 Ω

AET<1%
Total reflux episodes <40/day
MNBI>2500 Ω



Objectives and Methods



Objective

- Looking for identify patterns of acid and non-acid reflux,
- Assess 24Hour pH-impedance findings.



Population

GERD symptomatic patients with overweight or obesity

Methods

 Descriptive and Retrospective Analysis of a Prospective Cohort 1996-2023.



Results

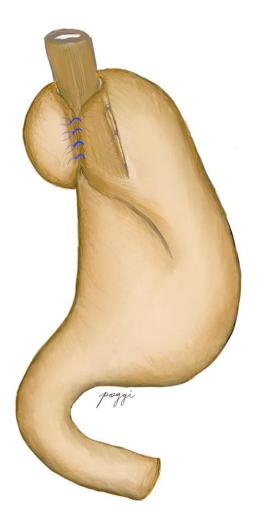
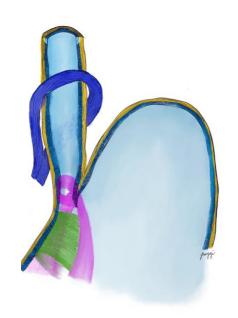


Table 1

| Demographic and clinical data | Results (n= 178) |
|---|--------------------|
| Sex, n (%) | |
| Female | 71 (39.9) |
| Male | 107 (60.1) |
| BMI, median (IQR) | 28.3 (26.4-30.8) |
| Age, mean (SD) | 48.1 <u>+</u> 12.7 |
| Time of disease, median (IQR) (years) | 4 (2-7) |
| Fast eating, n (%) | |
| Yes | 145 (81.4) |
| No | 33 (18.6) |
| Symptoms, n (%) | |
| Heartburn | 138 (77.5) |
| Regurgitation | 136 (76.4) |
| Chest pain | 106 (59.5) |
| Cough | 51 (28.6) |
| Pharyngitis | 41 (23.0) |
| Bronchospasm | 29 (16.3) |
| Time to diagnosis, median (IQR) (years) | 2 (1-5) |







BMI: Body mass index, IQR: Interquartile range, SD: Standard deviation

Results

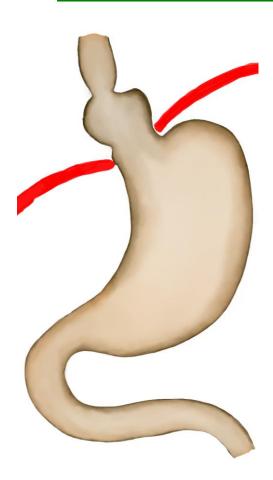
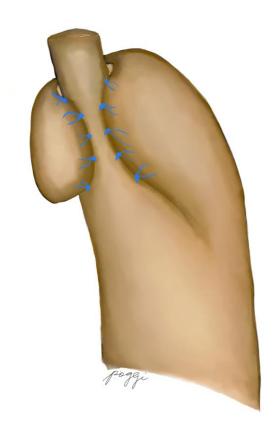


Table 2

| 24 h pH-impedance monitoring | Results (n = 115) |
|--|-------------------|
| Pathological reflux | 91 (79.1) |
| Symptom index, median (IQR) (%) | 50 (0-79) |
| AET, median (IQR) (%) | 6.7 (3-11.8) |
| Proximal esophageal involvement, n (%) | 107 (93.0) |
| DeMeester score, median (IQR) | 23.9 (10.9-48.9) |
| Position of major reflux, n (%) | |
| Upright | 106 (92.2) |
| Supine | 9 (7.8) |
| Total reflux episodes, median (IQR) | 68 (45-97) |
| Upright | 53 (32-77) |
| Supine | 10 (4-19) |
| Acid | 45 (22-62) |
| Non acid | 19 (9-36) |
| Type of reflux, n (%) | |
| Acid | 36 (31.3) |
| Alkaline | 10 (8.7) |
| Mixed with predominantly acid | 51 (44.3) |
| Mixed to predominantly alkaline | 16 (13.9) |
| MNBI, median (IQR) (ohms) (n = 31) | 1860 (860-3490) |



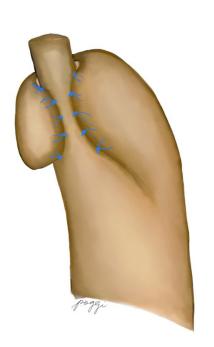


Conclusions

 Most of our patients are male with a median BMI in the overweight range.



- High prevalence of acid pathological reflux
- High prevalence of proximal esophageal involvement.
- The mean nocturnal baseline impedance was within the abnormal range.
- Preoperative 24h pH-impedance data establish patient profiles and will help postoperative follow-up, enhancing surgical outcomes.





Centro de Investigación de Fisiología y Cirugía del Aparato Digestivo



Dr. Harold Guerrero
CIFCAD – Lima Peru
harold.guerrero.m@icloud.com

Grateful for Your Attention!

