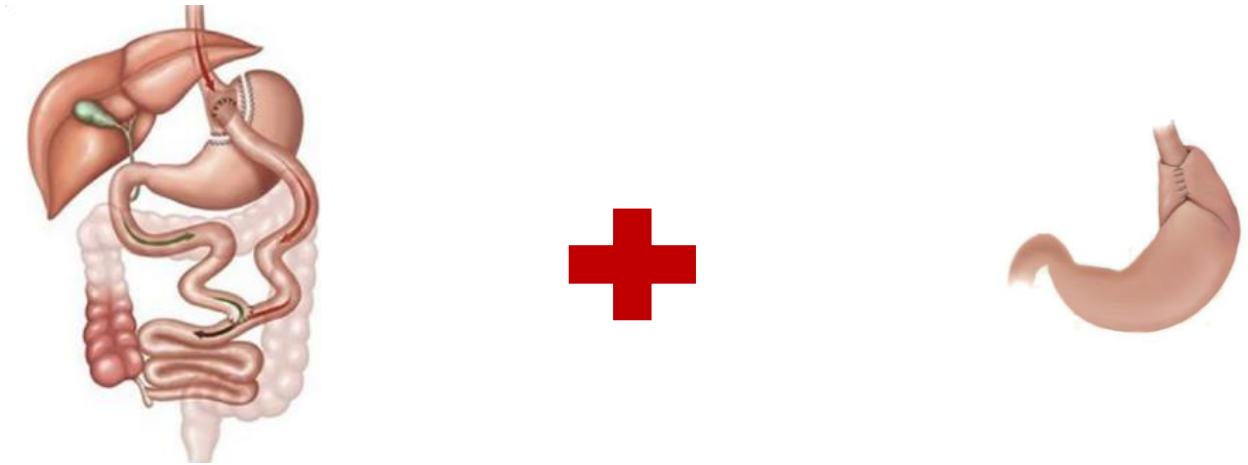
# Nissen's RYGB

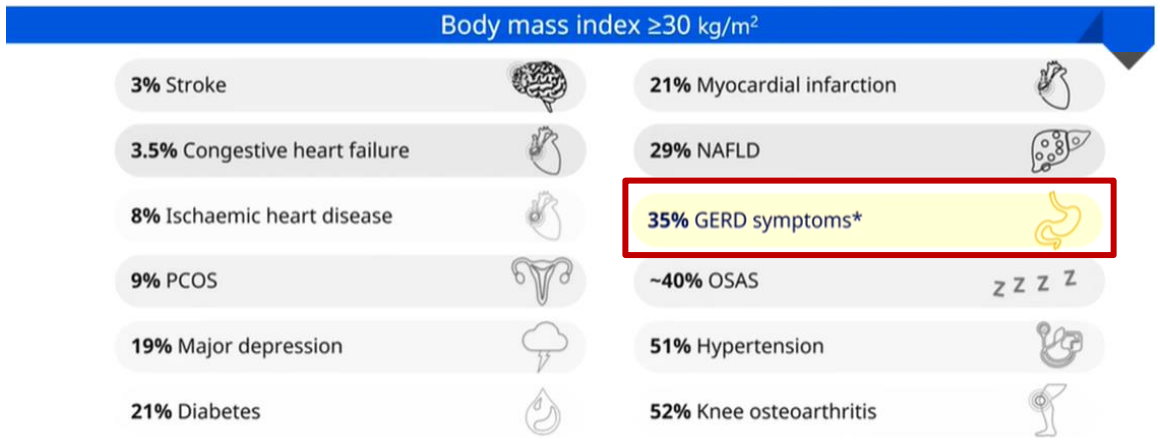
Dr Muffazal Lakdawala – Sir H N Reliance Foundation Hospital and Research Centre, Mumbai, India.



## CONFLICT OF INTEREST DISCLOSURE

**I have no potential conflict of interest to report**

## Prevalence of complications in people with obesity



# GERD in Obesity

Multicenter Study > Neurogastroenterol Motil. 2024 Apr;36(4):e14750. doi: 10.1111/nmo.14750. Epub 2024 Jan 31.

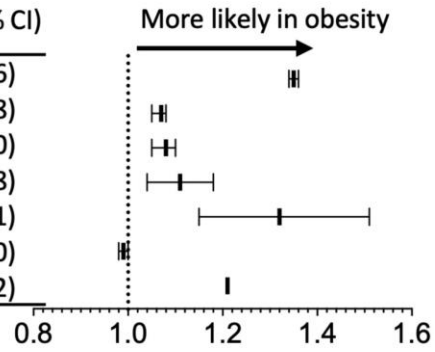
## Obesity is associated with higher prevalence of gastroesophageal reflux disease and reflux related complications: A global healthcare database study

Mengdan Xie [1], Lifu Deng [2], Ronnie Fass [1], Gengqing Song [1]

Prevalence and Odds Ratio for GERD and GERD-related Complications in Cohorts with versus without Obesity.

| Outcomes | Event, N (%) | | Odds Ratio (95% CI) |
|---|---|---|---|
| | Obesity | No-obesity | |
| GERD | 356947 (30) | 286745 (24) | 1.35 (1.34, 1.36) |
| Esophagitis | 39999 (3) | 37620 (3) | 1.07 (1.05, 1.08) |
| Barrett's esophagus | 13098 (1) | 12173 (1) | 1.08 (1.05, 1.10) |
| BE with dysplasia | 2027 (0) | 1830 (0) | 1.11 (1.04, 1.18) |
| Esophageal cancer | 467 (0) | 355 (0) | 1.32 (1.15, 1.51) |
| EGD | 95399 (8) | 96292 (8) | 0.99 (0.98, 1.00) |
| PPI use[a] | 363585 (31) | 317517 (27) | 1.21 (1.20, 1.22) |

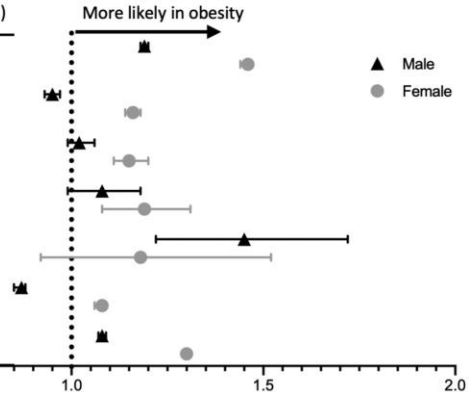
[a] PPI includes pantoprazole, omeprazole, esomeprazole, lansoprazole and rabeprazole




Comparison of associations between GERD/GERD-related complications and obesity between men and women.

| Outcomes | Gender | Event, N (%) | | Odds Ratio (95% CI) |
|---|---|---|---|---|
| | | Obesity | No-obesity | |
| GERD | Male | 127480 (28) | 112114 (25) | 1.19 (1.18, 1.20) |
| | Female | 225805 (32) | 172157 (24) | 1.46 (1.44, 1.47) |
| Esophagitis | Male | 14077 (3) | 14811 (3) | 0.95 (0.93, 0.97) |
| | Female | 25686 (4) | 22329 (3) | 1.16 (1.14, 1.18) |
| Barrett's esophagus | Male | 6518 (1) | 6382 (1) | 1.02 (0.99, 1.06) |
| | Female | 6475 (1) | 5619 (1) | 1.15 (1.11, 1.20) |
| BE with dysplasia | Male | 1095 (0) | 1012 (0) | 1.08 (0.99, 1.18) |
| | Female | 915 (0) | 772 (0) | 1.19 (1.08, 1.31) |
| Esophageal cancer | Male | 329 (0) | 227 (0) | 1.45 (1.22, 1.72) |
| | Female | 132 (0) | 112 (0) | 1.18 (0.92, 1.52) |
| EGD | Male | 34541 (8) | 39413 (9) | 0.87 (0.85, 0.88) |
| | Female | 59936 (8) | 56019 (8) | 1.08 (1.06, 1.09) |
| PPI use[a] | Male | 140342 (31) | 132974 (30) | 1.08 (1.07, 1.09) |
| | Female | 219604 (31) | 181438 (25) | 1.30 (1.29, 1.31) |

[a] PPI includes pantoprazole, omeprazole, esomeprazole, lansoprazole and rabeprazole



# GERD in Obesity

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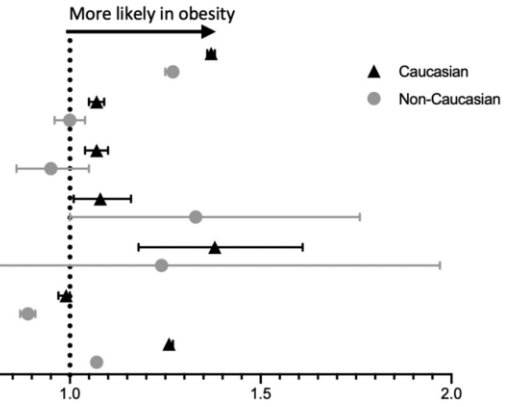
## Obesity is associated with higher prevalence of gastroesophageal reflux disease and reflux related complications: A global healthcare database study

Mengdan Xie [1], Lifu Deng [2], Ronnie Fass [1], Gengqing Song [1]

Comparison of associations between GERD/GERD-related complications and obesity between Caucasian and Non-Caucasian populations..

| Outcomes | | Event, N (%) Obesity | Event, N (%) No-obesity | Odds Ratio (95% CI) |
|---|---|---|---|---|
| GERD | Caucasian | 251077 (31) | 199779 (25) | 1.37 (1.36, 1.38) |
| | Non-Caucasian | 63594 (27) | 53232 (23) | 1.27 (1.25, 1.28) |
| Esophagitis | Caucasian | 29132 (4) | 27299 (3) | 1.07 (1.05, 1.09) |
| | Non-Caucasian | 5450 (2) | 5464 (2) | 1.00 (0.96, 1.04) |
| Barrett's esophagus | Caucasian | 10586 (1) | 9928 (1) | 1.07 (1.04, 1.10) |
| | Non-Caucasian | 722 (0) | 760 (0) | 0.95 (0.86, 1.05) |
| BE with dysplasia | Caucasian | 1685 (0) | 1563 (0) | 1.08 (1.01, 1.16) |
| | Non-Caucasian | 110 (0) | 83 (0) | 1.33 (1.00, 1.76) |
| Esophageal cancer | Caucasian | 366 (0) | 266 (0) | 1.38 (1.18, 1.61) |
| | Non-Caucasian | 41 (0) | 33 (0) | 1.24 (0.79, 1.97) |
| EGD | Caucasian | 70076 (9) | 71038 (9) | 0.99 (0.97, 1.00) |
| | Non-Caucasian | 16679 (7) | 18653 (8) | 0.89 (0.87, 0.91) |
| PPI use[a] | Caucasian | 256067 (32) | 217048 (27) | 1.26 (1.26, 1.27) |
| | Non-Caucasian | 71556 (30) | 68230 (29) | 1.07 (1.06, 1.08) |

[a] PPI includes pantoprazole, omeprazole, esomeprazole, lansoprazole and rabeprazole




**Study found a strong link between obesity and a higher prevalence of GERD, erosive esophagitis, BE, and esophageal cancer.**

**The correlation was particularly strong in women and Caucasian individuals.**

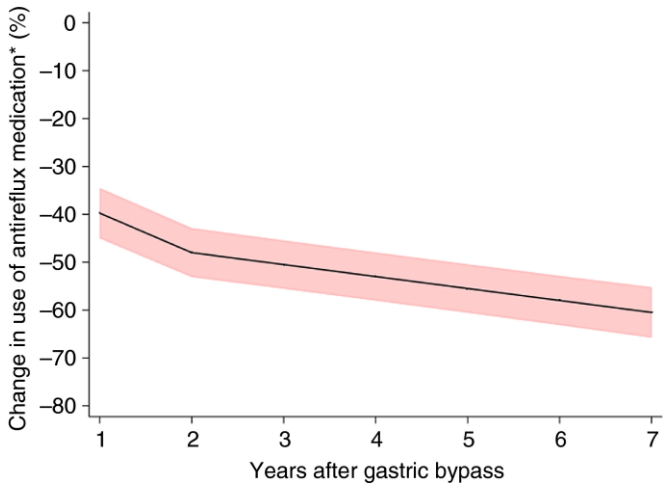
**The relationship between obesity and esophageal cancer was even stronger in men, warranting further investigation**

# Gastric bypass surgery in the treatment of gastro-oesophageal reflux symptoms

Dag Holmberg ✉, Giola Santoni, Shaohua Xie, Jesper Lagergren

First published: 04 June 2019 | https://doi.org/10.1111/apt.15274 | Citations: 59

| | | | N (%) |
|---|---|---|---|
| | **Total** | **Women** | **Men** |
| | **2454 (100.0)** | **2005 (81.7)** | **449 (18.3)** |
| **Age (y) – mean (SD)** | 46.1 (9.8) | 45.7 (9.8) | 47.3 (9.6) |
| **<40** | 592 (24.1) | 502 (25.0) | 90 (20.0) |
| **40-50** | 1026 (41.8) | 835 (41.6) | 191 (42.5) |
| **>50** | 836 (34.1) | 668 (33.3) | 168 (37.4) |
| **Comorbidity** | | | |
| **None** | 1524 (62.1) | 1290 (64.3) | 234 (52.1) |
| **1** | 667 (27.2) | 525 (26.2) | 142 (31.6) |
| **≥2** | 263 (10.7) | 190 (9.5) | 73 (16.3) |
| **Calendar period (y)** | | | |
| **2006-2010** | 738 (30.1) | 590 (29.4) | 148 (33.0) |
| **2011-2012** | 718 (29.3) | 601 (30.0) | 117 (26.1) |
| **2013-2015** | 998 (40.7) | 814 (40.6) | 184 (41.0) |
| **Preoperative dose of anti-reflux medication – mean (SD)** | 441.7 (230) | 433.7 (221) | 477.3 (262) |
| **Low[a]** | 1113 (45.3) | 929 (46.3) | 184 (41.0) |
| **Intermediate[b]** | 1090 (44.4) | 890 (44.4) | 200 (44.5) |
| **High[c]** | 251 (10.2) | 186 (9.3) | 65 (14.5) |
| **Surgical approach** | | | |
| **Laparotomy** | 189 (7.7) | 152 (7.6) | 37 (8.2) |
| **Laparoscopy** | 2265 (92.3) | 1853 (92.4) | 412 (91.8) |
| **Hospital stay (d) – median (interquartile range)** | 3 (2-4) | 3 (2-4) | 3 (2-4) |
| **Reoperation** | | | |
| **No** | 2389 (97.3) | 1961 (97.8) | 428 (95.3) |
| **Yes** | 65 (2.6) | 44 (2.2) | 21 (4.7) |
| **Deaths during follow-up** | 63 (2.6) | 45 (2.2) | 18 (4.0) |
| **Follow-up time (y) – median (interquartile range)** | 4.6 (3.1-6.3) | 4.6 (3.1-6.2) | 4.4 (3.0-6.6) |



In conclusion, this large and population-based cohort study with long and complete follow-up indicates that gastric bypass is an effective and long-lasting treatment of GERD in only approximately 50% of patients with severe obesity.

This is a lower success rate than in previous studies, indicating that the treatment effect may have been overstated.

| | Postoperative reflux (n) | Person-years at risk | Incidence rate ratio (95% confidence interval)[a] |
|---|---|---|---|
| **Year after surgery** | | | |
| 0-1 | 1367 | 2449 | 1 (reference) |
| 1-2 | 1135 | 2315 | 0.87 (0.84-0.90) |
| >2 | 3464 | 7018 | 1.02 (1.01-1.03) |
| **Age (y)** | | | |
| <40 | 1347 | 2979 | 1 (reference) |
| 40-50 | 2479 | 4952 | 1.08 (0.98-1.19) |
| >50 | 2140 | 3849 | 1.12 (1.02-1.24) |
| **Sex** | | | |
| Male | 945 | 2187 | 1 (reference) |
| Female | 5021 | 9595 | 1.28 (1.16-1.42) |
| **Comorbidity** | | | |
| None | 3421 | 7380 | 1 (reference) |
| 1 | 1740 | 3130 | 1.15 (1.07-1.25) |
| ≥2 | 805 | 1272 | 1.26 (1.14-1.39) |
| **Calendar period (y)** | | | |
| 2006-2010 | 2674 | 5554 | 1 (reference) |
| 2011-2012 | 1893 | 3570 | 1.08 (0.99-1.17) |
| 2013-2015 | 1399 | 2657 | 1.08 (0.99-1.18) |
| **Preoperative dose of anti-reflux medication** | | | |
| Low[b] | 2185 | 5458 | 1 (reference) |
| Intermediate[c] | 2952 | 5202 | 1.38 (1.28-1.50) |
| High[d] | 829 | 1120 | 1.77 (1.60-1.96) |
| **Surgical approach** | | | |
| Laparotomy | 719 | 1363 | 1 (reference) |
| Laparoscopy | 5247 | 10 419 | 0.94 (0.82-1.07) |

a Adjusted for year after surgery, age, sex, comorbidity, calendar period, dose of anti-reflux medication prior to gastric bypass and surgical approach.
b 180-365 daily doses.
c 366-720 daily doses.
d >720 daily doses.

Surgery. 2024 Mar;175(3):587-591. doi: 10.1016/j.surg.2023.10.031. Epub 2023 Dec 27.

# Roux-en-Y gastric bypass versus fundoplication for gastroesophageal reflux disease in patients with obesity results in comparable outcomes

Stephanie Joseph [1], Vanessa N Vandruff [2], Julia R Amundson [2], Simon Che [3], Christopher Zimmermann [3], Shun Ishii [3], Kristine Kuchta [3], Woody Denham [3], John Linn [3], H Mason Hedberg [3], Michael B Ujiki [3]

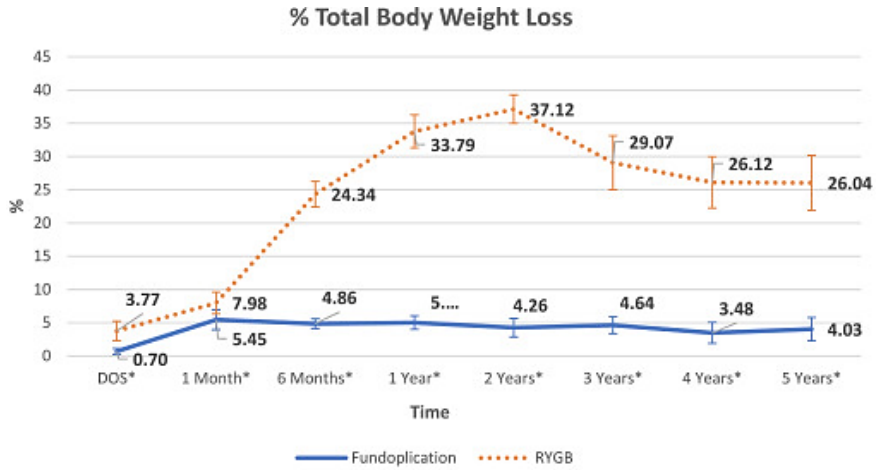
Total no of patient = 95

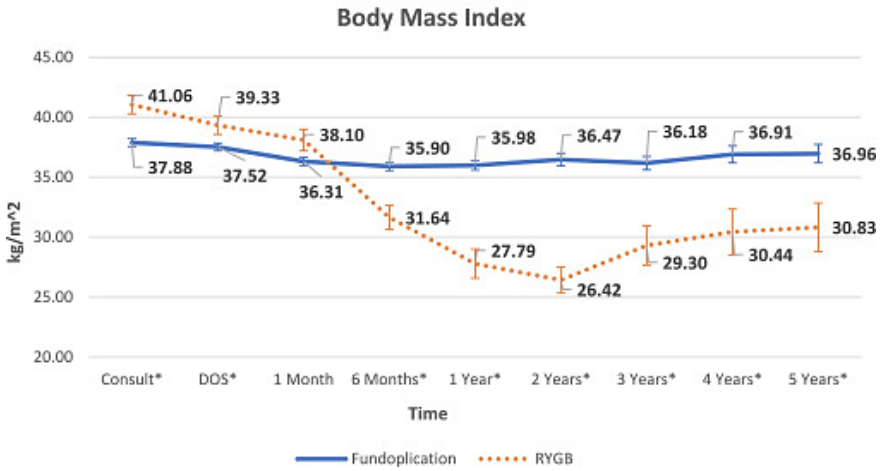
Fundoplication (n = 72, 75.8%)

Roux-en-Y gastric bypass (n = 23, 24.2%)

All patients saw an improvement in gastroesophageal reflux disease symptoms and overall quality of life.

There were no significant differences in postoperative Reflux Symptom Index, Dysphagia, or Short-Form-36 scores. Significant differences in gastroesophageal reflux disease-Health Related Quality of Life scores were seen at preoperative, 1, 2, and 5 years postoperative ($P < .05$), with better symptom control in the fundoplication group.



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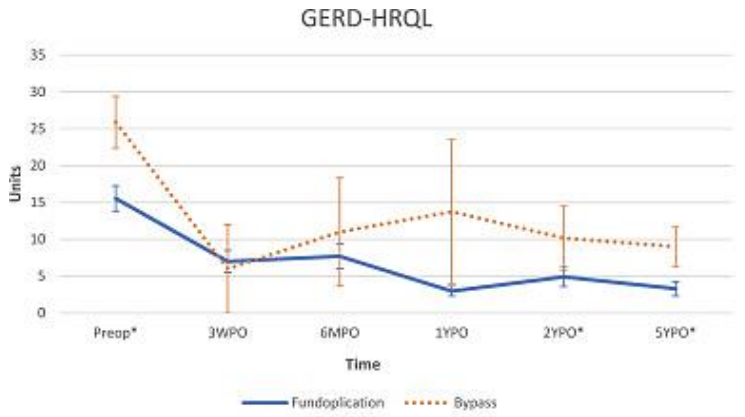
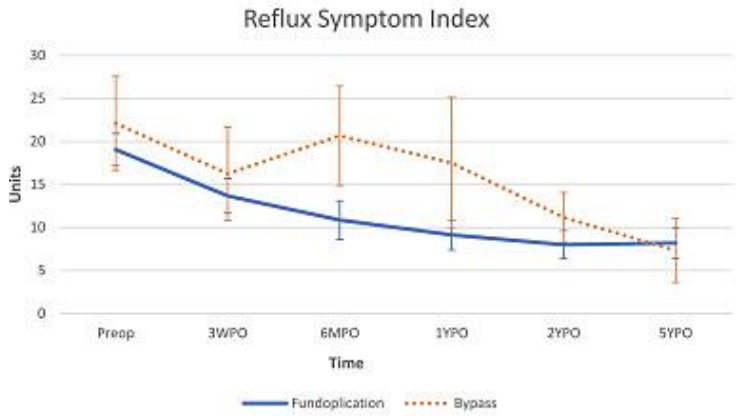
No significant difference was noted in postoperative DeMeester scores or percent time pH <4.

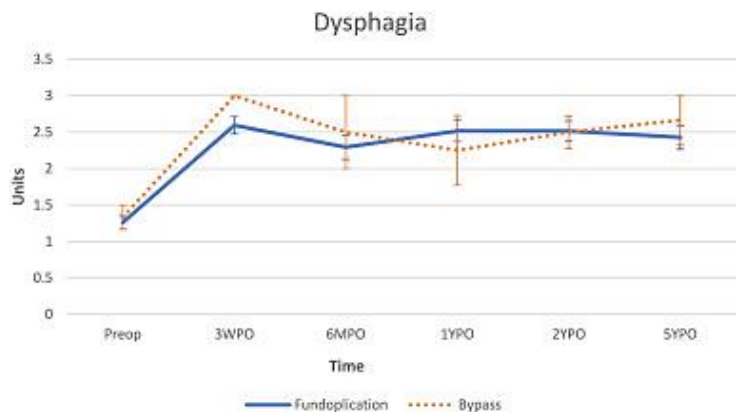
Weight loss was significantly higher in the Roux-en-Y gastric bypass group at all postoperative time points up to 5 years (P < .05).

**Conclusion:**

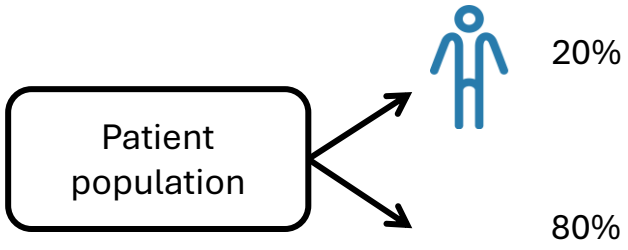
**Roux-en-Y gastric bypass and fundoplication both decrease gastroesophageal reflux disease symptoms. Subjective data shows that patients undergoing Roux-en-Y gastric bypass may complain of worse symptoms compared to patients undergoing fundoplication. Objective data notes no significant difference in postoperative pH testing.**



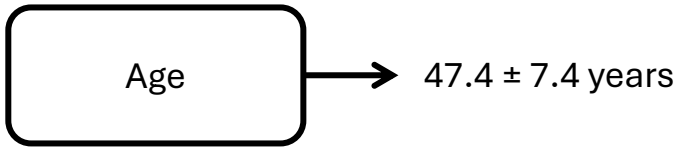



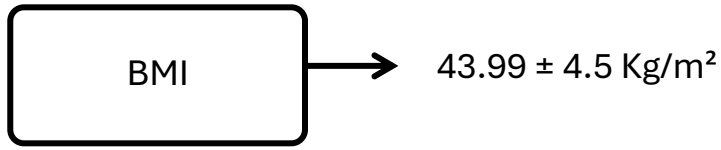



## Inclusion Criteria

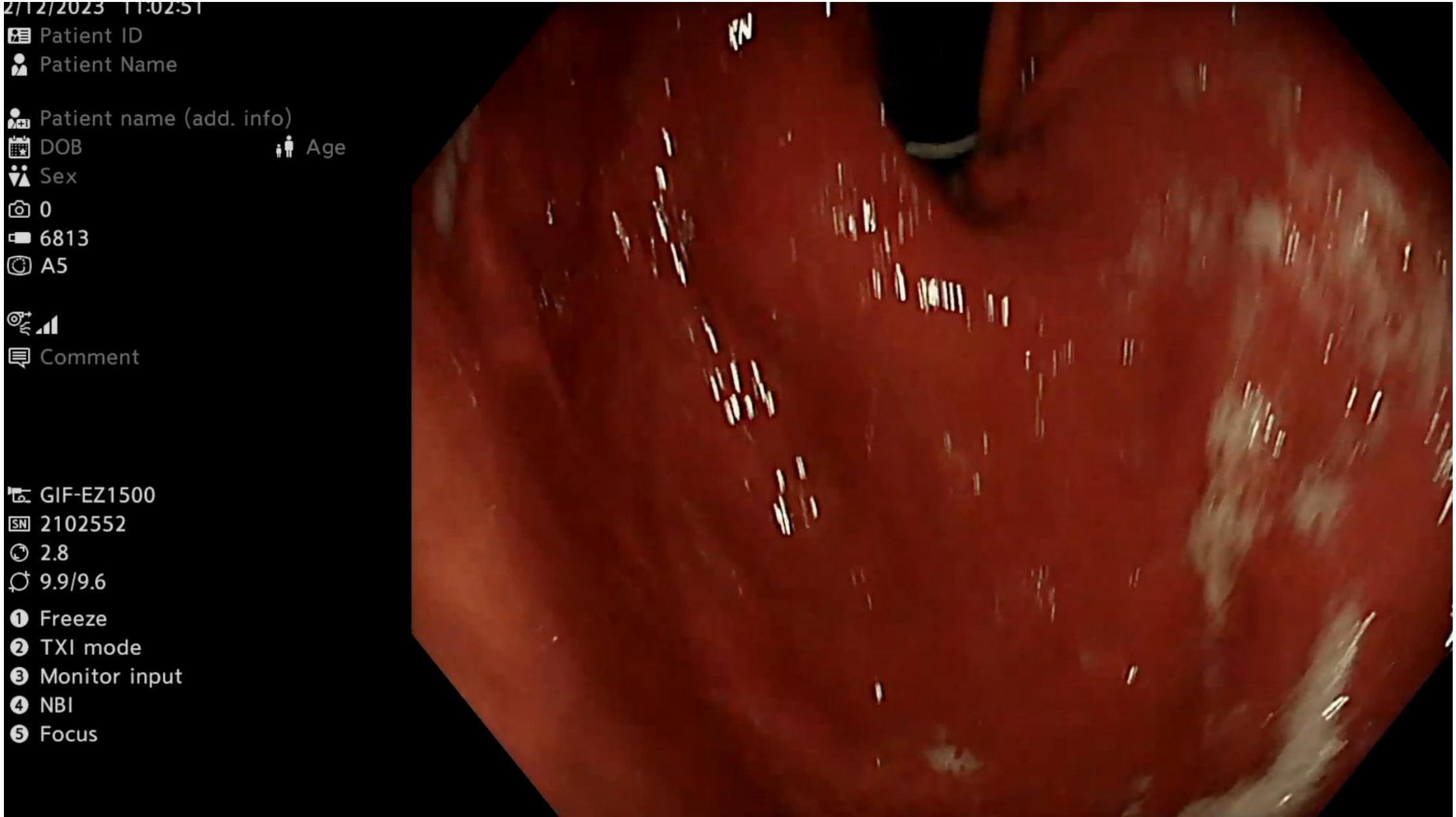



Large Hiatal Hernia
Grade 3 on Hill's Classification
Grade C/D Oesophagitis
Barrett's Oesophagitis



## Video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Patient ID
Patient Name
Patient name (add. info)
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Age
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0
6813
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Comment
GIF-EZ1500
SN 2102552
2.8
9.9/9.6
1 Freeze
2 TXI mode
3 Monitor input
4 NBI
5 Focus



We Never say Goodbye in India
We say Until We Meet Again