

INTRODUCTION

- Gastroparesis (GP) and functional dyspepsia (FD) present with overlapping symptoms differentiated by delayed gastric emptying in GP.
- Postsurgical GP is the third leading etiology for GP. Surgical history is not commonly considered to be a risk factor for FD.
- A lot of patients received cholecystectomy for abdominal pain without clear indications.

AIM

- To compare if there was any difference of surgical interventions in patients with GP and FD.

METHOD

- A population-based study was performed using IBM Explorys (1999-2022), a large pooled de-identified database with a patient information from more than 300 hospitals across the US
- GP cohort consists of patients with a diagnosis of gastroparesis, with exclusion criteria: cyclical vomiting syndrome, psychoactive substance abuse, eating disorder, factitious disorder, malignant tumor of esophagus and stomach, neoplasm of abdomen, gastric or intestinal obstruction, IBD, adhesion of intestine, carcinomatosis, perforation of intestine, Roux-en-Y gastrojejunostomy, and gastrectomy.
- FD cohort was similarly constructed with additional exclusion criteria: gastroparesis, gastrointestinal ulcer, brain neoplasm and pancreatitis.
- Surgical history and its timeline were collected, including fundoplication, cholecystectomy, and paraesophageal hernia repair.
- Odds ratios (ORs) with 95% confidence interval were used to compare the cohorts.

REFERENCES

1. Al-Mulhim AS. Gastroparesis post-laparoscopic cholecystectomy in diabetic patients. Updates Surg 2017;69:89-93.

RESULTS

- We identified a total of 17570 patients with GP and 60230 patients with FD.
- A significant percentage of patients with GP received cholecystectomy, which was higher than that of FD (26.9 vs 17.9%, $p < 0.001$).
- There were a higher percentage of fundoplication and paraesophageal hernia repair in GP than FD (1.99 vs 1.69%, $p = 0.0082$; 0.80 vs 0.53%, $p = 0.0001$).
- A total of 3720 (79%) of patients with GP and 8360 (77%) of patients with FD received cholecystectomy without a clear indication. Interestingly, for patients with GP who underwent cholecystectomy, the diagnosis of GP was made after cholecystectomy in 30.2% of the cases.

Table 1 Surgeries in gastroparesis and functional dyspepsia

	GP (N=17570)	%	FD (N=60230)	%	OR	P
Fundoplication	350	1.99%	1020	1.69%	1.04-1.33	0.0082
Cholecystectomy	4730	26.92%	10790	17.91%	1.62-1.76	$P < 0.0001$
Paraesophageal hernia repair	140	0.80%	320	0.53%	1.23-1.84	0.0001

CONCLUSIONS

- Patients with GP are more likely to receive surgical intervention than FD, especially cholecystectomy.
- Over three quarters of patients with GP and FD receive cholecystectomy without a clear indication.

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