Gastroparesis Is Associated With More Concurrent Gastrointestinal Symptoms and Motility Disorders Than Functional Dyspepsia

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INTRODUCTION

- Gastroparesis (GP) and functional dyspepsia (FD) present with overlapping upper gastrointestinal (GI) symptoms, such as: nausea, vomiting, early satiety, postprandial fullness, epigastric pain, and bloating.
- Other gastrointestinal motility disorders may be concurrent in patients with GP.

AIM

- To compare the presence of GI symptoms and other gastrointestinal motility disorders in patients with GP and FD

METHOD

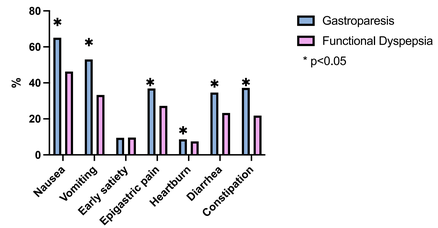
- A population-based study was performed using IBM Explorys (1999-2022), a large pooled de-identified database with a patient information from more than 300 hospitals across the US
- GP cohort consists of patients with a diagnosis of gastroparesis, with exclusion criteria: cyclical vomiting syndrome, 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.
- The presence of GERD, IBS, GI symptoms and common GI medications were collected.
- Odds ratios (ORs) with 95% confidence interval were used to compare the cohorts.

RESULTS

- GP and FD cohort consisted of 17,570 and 60,230 patients respectively.
- There was a higher prevalence of concurrent motility disorders in patients with GP than FD, including GERD and IBS (65.1 vs 50.9%, 18.6 vs 13.3%).
- Patients with GP tend to present with more upper and lower GI symptoms than FD, including nausea (65.1 vs 46.3%), vomiting (53.0 vs 33.3%), epigastric pain (36.9 vs 27.2%), heartburn (8.6 vs 7.5%), diarrhea (34.6 vs 23.3%) and constipation (37.2 vs 21.8%).
- However, there was no difference in terms of early satiety and bloating when comparing the two groups
- Acid reducing medications, anti-nausea medications and prokinetic agents were more commonly prescribed for patients with GP than FD, including proton pump inhibitors (PPIs), H2 receptor antagonists (H2RA), Metoclopramides, and Ondansetron.

Table 1 GI symptoms and motility disorders in gastroparesis and functional dyspepsia

			GP (N=17570)	%	FD (N=60230)	%	OR	P
GI diseases		GERD	11430	65.1%	30650	50.9%	1.74-1.86	< 0.0001
		IBS	3260	18.6%	8030	13.3%	1.42-1.55	< 0.0001
Symptoms	Upper GI symptoms	Nausea	11430	65.1%	27910	46.3%	2.08-2.23	< 0.0001
		Vomiting	9310	53.0%	20060	33.3%	2.18-2.34	< 0.0001
		Early satiety	1660	9.5%	5780	9.6%	0.93-1.04	0.5556
		Epigastric pain	6490	36.9%	16380	27.2%	1.51-1.62	< 0.0001
		Heartburn	1510	8.6%	4500	7.5%	1.10-1.24	< 0.0001
	Lower GI symptoms	Diarrhea	6070	34.6%	14050	23.3%	1.67-1.80	< 0.0001
		Constipation	6540	37.2%	13110	21.8%	2.06-2.21	< 0.0001
		Bloating	60	0.3%	170	0.3%	0.90-1.63	0.2039
Medications		PPI	13680	77.9%	35430	58.8%	2.37-2.56	< 0.0001
		H2RA	7710	43.9%	18310	30.4%	1.73-1.85	< 0.0001
		Metoclopramide	8630	49.1%	12490	20.7%	3.56-3.82	< 0.0001
		Ondansetron	12570	71.5%	31330	52.0%	2.24-2.41	< 0.0001



CONCLUSIONS

- GP is associated with more concurrent GI symptoms and motility disorders compared with FD.
- Acid reducing medications, anti-nausea and prokinetic medications are more commonly prescribed for patients with GP.

REFERENCES

1. Evans PR, Bak YT, Shuter B, et al. Gastroparesis and small bowel dysmotility in irritable bowel syndrome. Dig Dis Sci 1997;42:2087-93.

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