

INTRODUCTION

- Gastroparesis (GP) and functional dyspepsia (FD) are a similar spectrum of upper gastrointestinal disorders.
- There is a lack of large-scale studies to compare the epidemiology of GP and FD.

AIM

- The goal of the study was to delineate the demographic information of GP and FD using a large deidentified database in the US.

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
- We selected adult patients who have completed a gastric emptying study in the past and further divide them into GP and FD cohort groups.
- GP cohort consists of adult 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.
- Demographic information, comorbidities and gastrointestinal symptoms were collected.
- The number of patients and respective percentages were obtained.
- Chi square tests and odds ratios (OR) with a 95% confidence interval were used to compare the cohorts.

RESULTS

- A total of 157,650 adult patients had completed gastric emptying study. Among those patients, a total of 17570 (11%) patients fulfilled the criteria of GP and 60230 (38%) patients were included into the FD cohort.
- From age 20-69, the prevalence of GP and FD increases with age; however, the prevalence of GP and FD decreases with age for patients who are age 70 and above.
- In the younger age group from 20-59, the prevalence of GP is higher than that of FD; In the elderly population (Age 70 and above), the prevalence of FD is higher than that of GP. Our data revealed female predominance in both GP and FD (74.5% and 70.75%).
- The percentage of female is higher in GP cohort compared to FD cohort (OR 1.21;1.16-1.26, $p < 0.0001$). Most patients with GP and FD are Caucasians (75.64% and 76.69%), followed by African American (13.26% and 10.91%).

		Gastroparesis (N=17570)	%	Functional dyspepsia (N=60230)	%	OR	P
Age	20-29	890	5.07%	2740	4.55%	1.04-1.21	0.0043
	30-39	2340	13.32%	7080	11.75%	1.10-1.21	<0.0001
	40-49	3120	17.76%	8950	14.86%	1.18-1.29	<0.0001
	50-59	3780	21.51%	10930	18.15%	1.19-1.29	<0.0001
	60-69	3790	21.57%	12990	21.57%	0.96-1.04	0.992
	70-79	2730	15.54%	11830	19.64%	0.72-0.79	<0.0001
	80-89	1210	6.89%	5940	9.86%	0.63-0.72	<0.0001
	90 above	350	1.99%	1910	3.17%	0.55-0.70	<0.0001
Gender	Female	13090	74.50%	42610	70.75%	1.16-1.26	<0.0001
Race	Caucasian	13290	75.64%	46190	76.69%	0.91-0.98	0.0039
	AA	2330	13.26%	6570	10.91%	1.19-1.31	<0.0001
	Asian	160	0.91%	730	1.21%	0.630-0.89	0.0010
	Hispanic/Latino	160	0.91%	600	1.00%	0.77-1.09	0.3106
	Unknown/Other	1630	9.28%	6140	10.19%	0.85-0.95	0.0004

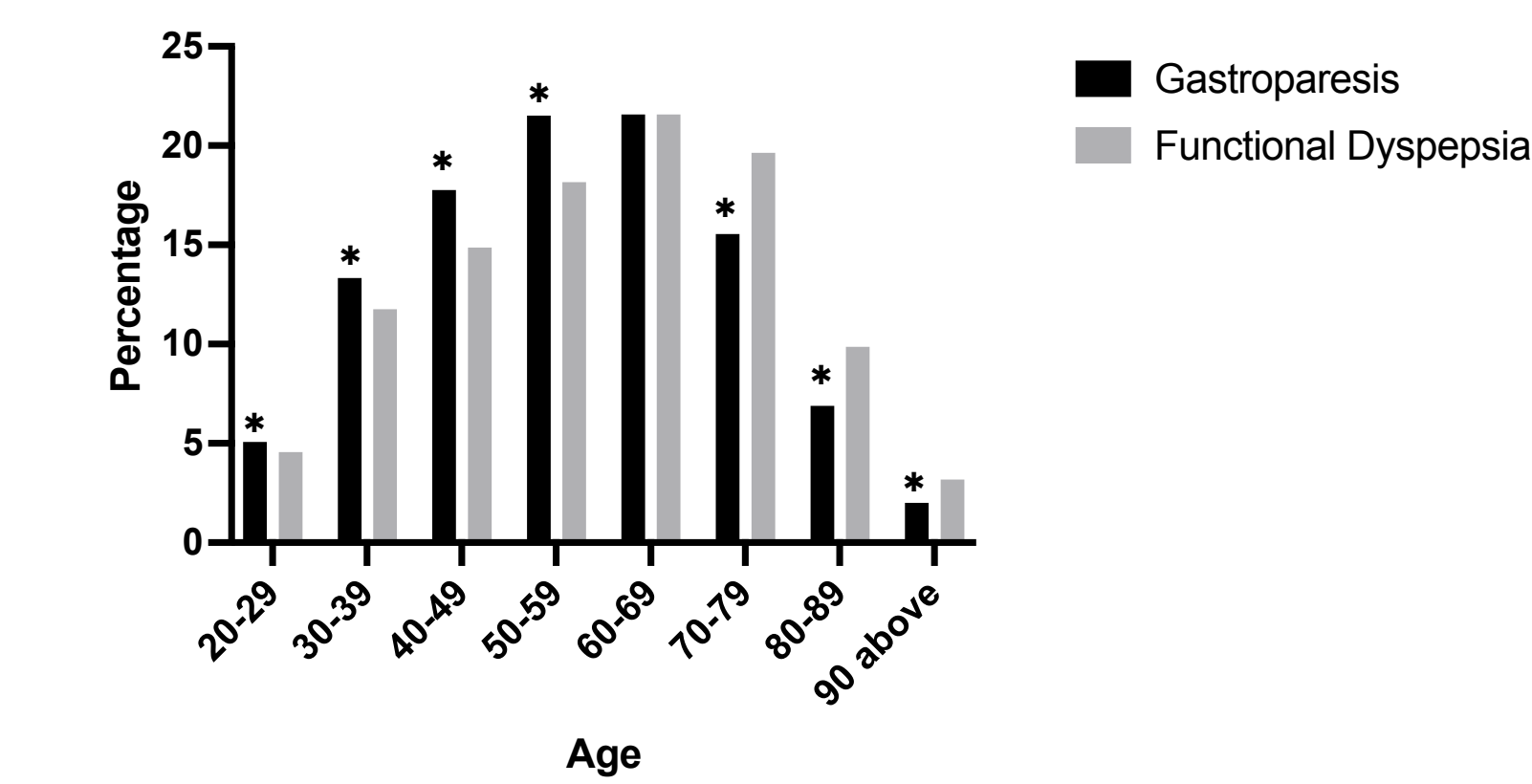


Figure 1 Age distribution of gastroparesis and functional dyspepsia. * $p < 0.05$

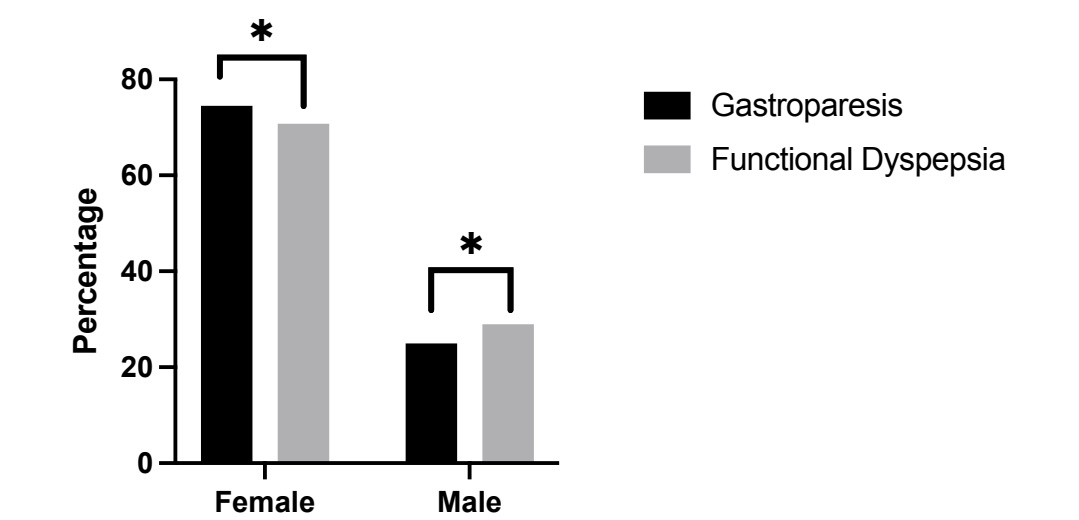


Figure 2 Gender distribution of gastroparesis and functional dyspepsia. * $p < 0.05$

CONCLUSIONS

- The prevalence of GP and FD increases with age up until age 69 and then decreases.
- GP is more prevalent in the younger age group and FD is more prevalent in the elderly population above age 70. There is a female predominance in both GP and FD.

REFERENCES

1. Jung HK, Choung RS, Locke GR, 3rd, Schleck CD, Zinsmeister AR, Szarka LA, et al. The incidence, prevalence, and outcomes of patients with gastroparesis in Olmsted County, Minnesota, from 1996 to 2006. *Gastroenterology*. 2009;136(4):1225-33.

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