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EPIDEMIOLOGY AND RISK OF PSYCHIATRIC DISORDERS AMONG PATIENTS WITH GASTROESOPHAGEAL REFLUX DISEASE:

A POPULATION-BASED NATIONAL STUDY

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Overview

- Gastroesophageal reflux disease (GERD) is a chronic disease caused by the reflux of the gastric contents into the esophagus.

- The chronic symptoms of GERD have been shown to negatively impact the psychological and function status of these patients.

- We examined the prevalence of various psychiatric disorders in patients with GERD and factors associated with them.

Methods

- Explorys database between 1999-2022.

- Patients > 18 y/o

- We identified patients diagnosed with GERD.

- We collected demographic data, co-morbidities and psychiatric disorders including: anxiety, depression, bipolar disorder, eating disorder, and autistic disorder.

- Univariate and multivariate analyses were performed using SPSS.

Results

- We identified 6,748,3850 patients with GERD (9.7%).

- Table 1 summarizes the demographic characteristics and co-morbidities of patients in cohort.

- In univariate analysis, when compared to patients with no history of GERD (controls), GERD patients (cases) were more likely to have anxiety disorder (OR 5.77 [5.76-5.78)]), depression (OR 6.22 [6.21-6.23]), bipolar disorder (OR 4.00 [3.98-4.02], eating disorder (OR 4.58 [4.54-4.62]), and autistic disorder (OR 1.98 [1.95-2.02]) (table 1).

- In multivariate analysis adjusted for age, gender and race, we re-enforced that GERD was independently associated with higher risk for anxiety (OR 2.84 [2.84-2.85]), depression (3.60 [3.59-3.61]), bipolar disorder (1.34 [1.33-1.34]), eating disorder (1.37 [1.35-1.38]) and autistic disorder (1.17 [1.15-1.20]) (Table 2).

	GERD		Non-GERD		OR 95% CI
	Number (Percentage)		Number (Percentage)		
Total	6,748,850	9.7%	62,556,240	90.2%	
Age (years)					
18-65	3,408,520	51%	44,297,610	71%	0.483 (0.482-0.484)
>65	2,734,010	49%	17,166,600.	27%	2.532 (2.528-2.536)
Gender					
Male	3,301,680	41%	28,127,780	45%	0.833 (0.832-0.834)
Female	3,998,130	59%	33,959,060	54%	1.224 (1.222-1.226)
Race					
Caucasian	4,999,030	74%	32,318,160	52%	2.67 (2.66-2.68)
African American	776,650	12%	6,219,520	10%	1.26 (1.25-1.27)
Hispanic	59,240	1%	837,650	1%	0.91 (0.89-0.93)
Comorbidities					
Smoker	921,230	14%	2,894,580	5%	3.258 (3.250-.266)
Alcohol abuse	269,370	4%	822,040	1%	3.12 (3.10-3.13)
Substance abuse	506,360	8%	1,687,010	3%	2.92 (2.91-2.93)
DM	1,784,190	26%	4,348,050	7%	4.81 (4.80-4.82)
HTN	4,073,950	60%	10,130,140	16%	7.88 (7.86-7.89)
HLD	3,777,920	56%	8,016,350	13%	8.65 (8.63-8.66)
Obesity	1,827,180	27%	3,620,490	6%	6.04 (6.03-6.05)
Anxiety Disorder	1,877,090	28%	3,912,810	6%	5.77 (5.76-5.78)
Depression Disorder	2,249,150	33%	4,651,070	7%	6.22 (6.21-6.23)
Bipolar disorder	312,920	5%	750,170	1%	4.00 (3.98-4.02)
Eating Disorder	63,090	1%	128,500	0.2%	4.58 (4.54-4.62)
Autistic disorder	15,450	0.2%	72,220	0.1%	1.98 (1.95-2.02)

	OR	95% CI	
		Lower	Upper
Anxiety	2.84	2.84	2.85
Depression	3.60	3.59	3.61
Bipolar Disorder	1.34	1.33	1.34
Eating disorder	1.37	1.35	1.38
Autistic disorder	1.17	1.15	1.20

OR: Odds Ratio; CI: Confidence interval

Discussion

- In this large study, we found a higher prevalence of various psychiatric diseases including anxiety, depression, bipolar, eating disorder and autism disorder in GERD patients.

- Further clinical studies exploring the relationship between GERD and psychiatric disorders are required