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Anxiety and Depression in Patients Suffering From Globus Pharyngeus-An Observational Cross Sectional Study

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Abstract:*Introduction:* "Globus sensation" is often described as the sensation of a lump in the throat associated with dry swallowing or the need for dry swallowing, which disappears completely during eating or drinking and for which no organic cause can be established. The globuspharyngeus has been defined as consisting of a persistent or intermittent sensation of a lump or foreign body in the throat for at least 12 weeks, occurrence of the sensation between meals absence of dysphagia or odynophagia; absence of pathological reflux, achalasia or other motility disorder with a recognized pathological basis globus is a painless symptom and frequently improve with eating. ***Aims***: To study the anxiety and depression in patients suffering from globuspharyngeus. ***Materials and Methods:*** The present study was a cross sectional study; hospital based single cantered observational study. This Study was carried one and half years at NRS medical college and hospital. 80 patients were included in this study. ***Result***: In our study, out of 80 patients, most of the patients were 31-40 years old. Age was statistically significant. The mean Age of patients was [34.8625± 7.7700]. We found that, female population was higher than male population and it was statistically significant. It was found that, most of the patients were belong to Lower class and though and higher number of patients were from rural area followed by Urban area which were statistically significant. We observed that, lower number of patients were Unmarried and it was statistically significant. In our study, more number of patients were from Joint Family followed by Nuclear family which was not statistically significant. We found that, most of the patients had No Anxiety and Depression [41(51.1%)]. Anxiety disorder was 20 (25.1%) patients and Depressive episode was 19 (23.8%) patients which was statistically significant (p=.00034). ***Conclusion***: Anxiety disorder was 20 (25.1%) patients and Depressive episode was 19 (23.8%) patients which was statistically significant (p=.00034). Our study showed that, most of the patients had ≤17 Mild HAM A and more number of patients had <10 normal HAM D which were statistically significant.

Keywords: Psychiatric comorbidities, Globus Pharyngeus, Anxiety and Depression

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INTRODUCTION

It is approximately 2500 years since Hippocrates first noted globuspharyngeus[1]. In 1707, Purcell was the first to accurately describe the condition; he believed that globus resulted from pressure on the thyroid cartilage due to contraction of the strap muscles of the neck. In the past, globus was described as "globushystericus" because of its frequent association with menopause or psychogenic factors. However, Malcomson[2]coined the more accurate term "globuspharyngeus" in 1968 after discovering that most patients experiencing globus did not have a hysterical personality.

"Globus sensation" is often described as the sensation of a lump in the throat associated with dry swallowing or the need for dry swallowing, which disappears completely during eating or drinking and for which no organic cause can be established. It is a common condition that accounts for approximately 4% of new referrals to ear, nose and throat clinics, and it is reported by up to 46% of apparently healthy individuals, with a peak incidence in middle age Although the prevalence of patients with globus sensation was high, the natural history of patients with globus sensation has not been fully elucidated. In the past, Rowley *et al*. showed that during the mean follow-up period of 7 years and 7 months, 55%

of patients with globus sensation were asymptomatic and 45% of patients had persistent symptoms, while no patient developed upper gastrointestinal malignancy[3]

The globuspharyngeus has been defined as consisting of a persistent or intermittent sensation of a lump or foreign body in the throat for at least 12 weeks, occurrence of the sensation between meals absence of dysphagia or odynophagia; absence of pathological reflux, achalasia or other motility disorder with a recognized pathological basis[4]globus is a painless symptom and frequently improve with eating. Globus can affect up to 46% of apparently healthy adults. The sensation is associated in with dry swallowing and no difficulties seem to neither occur in swallowing food nor have any weight loss reported.

Occasionally the syndrome is experienced as a sharp sting a by a fishbone, as soreness in the throat or as a burning pain . The pathogenesis is however unknown. Published potential causes include cricipharyngeal spasm, Psychogenic[5]Lingual Tonsilar hypertrophy, cervical osteophytes and Tempomandibular joint disorders

It seems that globus patients have psychological distress, such as anxiety and low mood and somatic concern more often than controls.

Gastroesophageal reflux disease (GERD) is a condition that develops when reflux of gastric contents causes troublesome symptoms and/or complications. GERD has now been considered the most common gastrointestinal (GI) disease worldwide. Subsequent to this trend, burgeoning of clinical entities attributed to GERD has also occurred. These include many ear, nose and throat, pulmonary and allergic symptoms, which are collectively termed extra-esophageal reflux disease Extra-esophagealreflux is thought to be one of main factors in the pathogenesis of globus sensation[6]

MATERIALS AND METHODS

Study design: A cross sectional, hospital based single cantered observational study.

Study setup and timeline

Place of study: Patients attending psychiatry OPD primarily referred from ENT or Gastroenterology after excluding organic cause in a tertiary care general hospital [NRS medical college and hospital]

Period of study: One and half years after approval from Health University and clearance from Institutional Ethics Committee

Sampling method: purposive sampling

SAMPLE SIZE: Sample Size in A Cross Sectional Study, N= 4PQ/η2 Where P= prevalence of the disease from previous study, Q= 100-P, η= margin of error. With 90% confidence interval η=10. Prevalance from previous study shows prevalence of major depressive disorder was found in 25.71%[12]. So minimum calculated sample size should be, N= 4 ×25.71 × 74.29/10^2 = 76.39. Hence my sample size would be 80.

Inclusion criteria

1. Patients of both sexes aged between 18-45 years of age
2. Patient primarily referred to psychiatric OPD from ENT OPD and gastroenterology OPD after ruling out organic cause and having persistent symptoms of globus.

3 Has provided informed consent

Exclusion criteria

1. chronic medical or surgical illness
2. Alcohol or any other substance abuse
3. Intelectual or any other psychological disability.

Tools used in the study:

1. Semi structured questionnaire for socio demographic and clinical profile
2. International Classification of Disease,10th revision, Diagnostic Criteria for Research (ICD -10-DCR)
3. Hamilton anxiety rating scale [HAM -A]

4. Hamilton depression rating scale [HAM-D]

Statistical Analysis:

For statistical analysis data were entered into a Microsoft excel spreadsheet and then analyzed by SPSS 27.0. andGraphPad Prism version 5. Data had been summarized as mean and standard deviation for numerical variables and count and percentages for categorical variables. Z-test (Standard Normal Deviate) was used to test the significant difference of proportions. p-value ≤ 0.05 was considered for statistically significant.

RESULT AND DISCUSSION

The present study was a cross sectional study; hospital based single cantered observational study. This Study was carried one and half years at NRS medical college and hospital. 80 patients were included in this study.

Wani ZA *et al*[7](2018) found that globus is the physical sensation of a lump in the throat presenting as difficulty in swallowing. Since there is a paucity of literature regarding the psychiatric comorbidity in globus, they aimed to study the psychiatric comorbidities in these patients visiting a tertiary care center in Kashmir. The mean age of their cases was 39.58 years.

Shrestha R *et al*[8](2018) found that globus sensation is described as a constant feeling of a lump, something stuck or foreign body in the throat associated with an uncomfortable experience of dysphagia or choking. majority number of patients were <45.07 [42 (60.0%)] years of age and >45.07 years of age [28(40.0%)]. The mean age of the sample was 45.07 years.

In our study, out of 80 patients, most of the patients were 31-40years old [33 (41.3%)] rest of 24 (30.0%) patients were 41-45years of age, 18 (22.5%) patients were 21-30years of age and 5 (6.2%) patients were <20 years of age. Age was statistically significant (p< .00001). The mean Age of patients was [34.8625± 7.7700].

Wani ZA *et al*[7](2018) found that globus is the physical sensation of a lump in the throat presenting as difficulty in swallowing.39 (76.5%) patients were female and 12 (23.5%) patients were male.

Shrestha R *et al*[8](2018) found that globus sensation is described as a constant feeling of a lump, something stuck or foreign body in the throat associated with an uncomfortable experience of dysphagia or choking. 46 (65.71%) patients were female and 24 (34.28%) patients were male.

Sundar KM *et al*[9](2021) found that refractory chronic cough (RCC) and unexplained chronic cough (UCC) are common problems seen in primary care and subspecialty clinics. 75% of patients were female.

Färkkilä MA *et al*[10](1994) found that to evaluate the role of gastrointestinal and psychiatric etiology in globus sensation. 13 females.

We found that, female population [47 (58.8%)] was higher than male population [33 (41.2%)] and it was statistically significant (p< .00001).

Shrestha R *et al*[8](2018) found that globus sensation is described as a constant feeling of a lump, something stuck or foreign body in the throat associated with an uncomfortable experience of dysphagia or choking. 16 (22.85%) patients were belong to Lower class and 54 (77.1%) were belong to middle class.

It was found that, most of the patients were belong to Lower class and though [36 (45.0%)] it was statistically significant (p< .00001).

Shrestha R *et al*[8](2018) found that globus sensation is described as a constant feeling of a lump, something stuck or foreign body in the throat associated with an uncomfortable experience of dysphagia or choking.rural background (54.28%).

Tang B *et al*[11](2016) found that to investigate the lifetime prevalence, epidemiological characteristics and psychological factors of globus symptoms in Guangzhou (Guangzhou Province, China). The prevalence of globus was higher in participants from the urban region than those from the rural areas (26.5% vs 16.4%, P = 0.001).

Our study showed that, higher number of patients were from rural area [67 (83.8%)] followed by Urban area [13 (16.2%)] and it was statistically significant (p< .00001).

In our study, majority number of patients were Hindu [41 (51.2%)] which was not statistically significant (p= 0.7489).

We observed that, lower number of patients were Unmarried [9 (11.2%)] and it was statistically significant (p< .00001).

Shrestha R *et al*[8](2018) found that globus sensation is described as a constant feeling of a lump, something stuck or foreign body in the throat associated with an uncomfortable experience of dysphagia or choking. 32 (45.71%) patients were from Nuclear family and 38 (54.28%) patients were from Joint family.

In our study, more number of patients were from Joint Family [45 (56.3%)] followed by Nuclear family [35 (43.7%)]which was not statistically significant (p=0.1141).

Wani ZA *et al*[7](2018) found that globus is the physical sensation of a lump in the throat presenting as difficulty in swallowing. Major psychiatric disorders seen in their patients were major depressive episode (23.53%) and generalized anxiety disorders (11.76%).

Shrestha R *et al*[8](2018) found that globus sensation is described as a constant feeling of a lump, something stuck or foreign body in the throat associated with an uncomfortable experience of dysphagia or choking. Major depressive disorder was found in 25.71% (n=18), Anxiety disorder in 22.85% (n=16).

Khan MR *et al*[12](2019) found that globus sensation is a subjective feeling of a lump or foreign body in the throat without interfering swallowing of food. It is a persistent and distressing sensation in throat. among them definite anxiety was found in 36(34.95%)

Tian J *et al*[13](2019) found that to determine whether E.N.T inpatients have a higher prevalence of mental illness than the general population and whether certain diseases are more likely to be associated with mental illness than other diseases. The overall anxiety (41.7 ± 9.7) and depression (55.9 ± 29.2) scores. Furthermore, the patients in the E.N.T department had a higher prevalence of anxiety and depression than those in the general surgery department but a similar prevalence to those in the respiratory department.

Al-Rawashdeh BM *et al*[14](2019) found that to determine the prevalence of depression and anxiety among otolaryngology outpatients at Jordan University Hospital. Depression and anxiety prevalence rates were 36.1% and 22.9%.

Tang B *et al*[11](2016) found that to investigate the lifetime prevalence, epidemiological characteristics and psychological factors of globus symptoms in Guangzhou (Guangzhou Province, China). Anxiety (39.8% vs 22.3%, P = 0.001), depression (31.2% vs 18.0%, P = 0.001) were significantly more common in respondents with globus than in those without.

We found that, most of the patients had No Anxiety and Depression [41(51.1%)], Anxiety disorder [20(25.1%)] followed by Depressive episode [19 (23.8%)] which was statistically significant (p=.00034).

Harvey PR *et al*[15](2018) found that globuspharyngeus is a sensation of a lump or foreign body in the throat, sometimes associated with thyroid diseases and surgery. A significant decrease of the mean GETS score was observed at the postoperative assessment (13.02 ± 11.84 vs 8.00 ± 11.26; p < 0.01).

Our study showed that, most of the patients had ≤17 Mild HAM A [55 (68.8%)] and though it was statistically significant (p< .00001). It was found that, more number of patients had <10 normal HAM D [30 (37.5%)] which was statistically significant (p=.00026).

Table 1: Distribution of Demographic variables

		Frequency	Percent
Age in group(years)	**≤20**	5	6.2%
	21 to 30	18	22.5%
	31-40	33	41.3%
	41- 45	24	30.0%
	Total	80	100.0%
Sex	**Female**	47	58.8%
	Male	33	41.2%
	Total	80	100.0%
SES	**Lower**	36	45.0%
	Lower Middle	28	35.0%
	Upper Lower	13	16.2%
	Upper Middle	3	3.8%
	Total	80	100.0%
Residence	**Rural**	67	83.8%
	Urban	13	16.2%
	Total	80	100.0%
Religion	**Hindu**	41	51.2%
	Muslim	39	48.8%
	Total	80	100.0%
Marital	**Married**	71	88.8%
	Unmarried	9	11.2%
	Total	80	100.0%
Family Status	**Joint**	45	56.3%
	Nuclear	35	43.7%
	Total	80	100.0%

Table 2: Distribution of Disorder Group

Disorder Group	Frequency	Percent
Depressive episode	19	23.8%
Anxiety disorder	20	25.1%

No Anxiety and Depression	41	51.1%
Total	80	100.0%

Table 3: Distribution of HAM A and HAM D group

		Frequency	Percent
HAM A group	**<=17 Mild**	55	68.8%
	18 to 24 mild to moderate	15	18.7%
	25 to 30 Moderate to Severe	10	12.5%
	Total	80	100.0%
HAM D group	**<10 normal**	30	37.5%
	10 to 13 Mild	20	25.0%
	14 to 17 moderate	10	12.5%
	> 17 Severe	20	25.0%
	Total	80	100.0%

CONCLUSION

- In our study, out **of 80 patients, most** of the patients were 31-40 years old. Age was statistically significant. The mean Age of patients was [34.8625± 7.7700].
- We found that, female population and it was higher than male population but this was statistically significant.
- It was found that, most of the patients were belong to Lower class and though and higher number of patients were from rural area followed by Urban area which were statistically significant.
- In our study, majority number of patients wereHindu which was not statistically significant.
- We observed that, lower number of patients were Unmarried and it was statistically significant.
- In our study, more number of patients were from Joint Family followed by Nuclear family which was not statistically significant.
- We found that, most of the patients had No Anxiety and Depression [41(51.1%)]. Anxiety disorder was 20 (25.1%) patients and Depressive episode was 19 (23.8%) patients which was statistically significant (p=.00034).
- Our study showed that, most of the patients had ≤17 Mild HAM A and more number of patients had <10 normal HAM D which were statistically significant.

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