

ASSESSMENT OF PSYCHOLOGICAL DISTRESS IN PATIENTS OF GLOBUS PHARYNGEUS: A CROSS-SECTIONAL STUDY FROM A TERTIARY CARE HOSPITAL OF EASTERN UTTAR PRADESH

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Abstract

Background: Globus pharyngeus is the painless sensation of a lump in the throat and frequently associated with persistent throat clearing, chronic cough, hoarseness and catarrh. It mostly occurs in the background of stressful life events and in the presence of significant psychological factors. The objective of this study is to assess the psychological distress and to find out clinical and psychological correlation in patients of globus pharyngeus. **Materials and Methods:** It was hospital-based cross-sectional study conducted on 60 patients with primary diagnosis of globus pharyngeus. The Glasgow Edinburgh Throat Scale (GETS) was used to assess globus symptoms and Depression, Anxiety and Stress Scale - 21 Items (DASS-21) was used to assess anxiety, depression and stress symptoms. Spearman's rank correlation test was used to examine the relationship between globus symptom severity (GETS) and DASS-21 score. **Result:** In this study patients of globus pharyngeus showed depressive, anxiety and stress symptoms in 88.33%, 86.67% and 90% of cases respectively. There was a significant positive correlation between GETS and DASS (D) ($r=0.340$, $p=0.008$) as well as between GEST and DASS (A) ($r=0.327$, $p=0.011$). **Conclusion:** This study emphasizes that psychological distress plays a significant role in symptom production of Globus. They should be regularly screened for psychiatric illness and consider for an integrated approach of treatment.

INTRODUCTION

Globus pharyngeus or globus sensation is the painless sensation of a lump in the throat and may be feel like a foreign body sensation, a tightening or choking. It is frequently associated with persistent / recurrent throat clearing, chronic cough, hoarseness, and catarrh.^[1] According to studies, persistent globus accounts for approximately 4% of all referrals to otolaryngologists and is usually reported in young to middle-aged females.^[2] The etiology of globus remains unclear and multifactorial. Most common causes of globus are gastroesophageal reflux, pharyngeal inflammation, cricopharyngeal spasms, sinusitis, and psychogenic factors.^[3]

There has been a long history of association between globus and psychological factors, as suggested by its previous name, globus hystericus. It

is the fourth most discriminating symptom of a somatization disorder after vomiting, aphonia and painful extremities.^[4] Research suggests that stressful life events precede the onset of globus symptoms and as many as 96% of patients with globus sensation report an exacerbation of symptoms during times of emotional intensity.^[5] In international classification of diseases 10th Revision (ICD-10), it is classified in the category of "Other Somatoform Disorders" with code of F44.8.^[6] In DSM-5, the term 'globus' is directly not mentioned but by description it is fitting with 'Conversion Disorder' of subtype of 'With Motor Symptom or Sensory Deficit' in the broad classification of Somatoform Disorder.^[7] A study done in India by Debnath et al. found total psychiatric comorbidity in Globus to be 79.25%.^[8] Hence, there is a need for the assessment of psychological distress in patients

with Globus Pharyngus. The aim of the present study was to evaluate psychological distress and to assess the clinical and psychological correlates in patients having globus pharyngus.

MATERIALS AND METHODS

Sampling and Procedure

This was a hospital-based cross-sectional study conducted in the Departments of Psychiatry and ENT at Maharshi Vashishtha Autonomous State Medical College and OPEC Hospital, Basti, Uttar Pradesh, between August 2021 to July 2022. The study was approved by the ethical committee of the institute.

Patients visited to ENT department having symptoms of globus sensation were thoroughly assessed with detailed history and clinical examinations. Fiberoptic nasopharyngolaryngoscopy was done in all cases. Those patients who had a positive history or clinical finding suggesting any organic condition like gastro-esophageal reflux, pharyngeal inflammation, sinusitis, postnasal drip, chronic tonsillitis, chronic laryngitis, thyroid disorders were excluded from the study. The diagnosis of globus was made according to ROME-III criteria proposed by Clouse et al.^[9]

After that patients were sent to department of psychiatry for detailed evaluation of associated psychological distress or psychiatric illness. The severity of Globus symptoms was assessed using the Glasgow Edinburgh Throat Scale (GETS). Psychological distress was assessed by using the Depression, Anxiety, and Stress Scale—21 Items (DASS-21).

Inclusion Criteria

1. Both male and female persons, aged between 18-60 years
2. Person with written informed consent.

Exclusion Criteria

1. Age below 18 years and above 60 years
2. Those having any severe medical illness.
3. Those having severe mental illness (Schizophrenia, Mental retardation) and substance abuse
4. A person who did not give written informed consents.
5. Those having a positive history or clinical finding suggesting any organic condition like gastro-esophageal reflux, pharyngeal inflammation, sinusitis, postnasal drip, chronic tonsillitis, chronic laryngitis, thyroid disorders.

A total of 78 patients were screened for the study, but 18 among them were excluded based on inclusion and exclusion criteria. Finally, 60 patients were recruited for study and were analysed.

Tools and Techniques

1. A Semi-structured, self- designed questionnaire about the socio-demographic variables, history of psychiatric, medical and surgical illnesses,

substance abuse, significant past illness and family history.

2. **Glasgow Edinburgh Throat Scale (GETS):**^[10] is a validated questionnaire used to measure the severity of the globus symptoms. It is composed of 2 parts. In this study, we only used the section regarding globus symptoms, which consists of 10 questions assessing various throat symptoms. Patients subjectively grade their symptoms for each question on an 8-point scale, with 0 being “none” and 7 being “unbearable.” The total GETS score is calculated by summing the scores from each question, and the highest possible score is 70. The higher the score, the more severe the globus symptoms.
3. **Depression, Anxiety and Stress Scale - 21 Items (DASS-21):**^[11] The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) are a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. It is the 4-point Likert scale where 0 = does not apply to me at all; 1 = applies to me to some degree, or some of the time; 2 = applies to me to a considerable degree, or a good part of my life; and 3 = applies to me very much, or most of the time. Scores for depression, anxiety and stress are calculated by summing the scores of the relevant items.

Statistical Analysis

A baseline data was used to describe the characteristics of the sample. Statistical analysis was performed using a trial version of SPSS (version 27.0; SPSS Inc., Chicago, IL). Spearman's rank correlation test was used to examine the relations between globus symptom severity (GETS) and DASS-21 score. P-values less than 0.05 were considered statistically significant.

RESULTS

A total of 78 patients were screened for the study, but 18 among them were excluded based on inclusion and exclusion criteria. Finally, 60 patients were recruited for study and were analysed.

Characteristics of Socio-demographic Profiles:

The mean age of the sample was 33.16 years. The majority of the sample population were female (56.67%), housewives by occupation (73.33%), Hindu by religion (93.33%), from rural background (66.66%), educated up to high school (36.66%); from joint family (70%) and belonged to upper lower socioeconomic status (43.33%). Socio-demographics details are summarized in [Table 1].

Globus symptoms (GETS) and psychological characteristics (DASS-21) [Table 3]:

According to GETS score 32 (53.33%) patients had mild, 18(30%) had moderate and 4(6.66%) had severe throat symptoms while 6(10%) reported no or normal throat symptoms. Based on the DASS-21

score, patients of globus pharyngeus showed depressive, anxiety and stress symptoms in 88.33%, 86.67% and 90% of cases respectively. Most patients had mild 30 (50%) to moderate 19 (31.66%) depressive features while 7% of patients had reported no or normal depressive features. Regarding anxiety, 32(53.33%), 17 (28.33%) &3 (5%) patients had mild, moderate, and severe anxiety symptoms respectively, while 8 (13.33%) patients had reported no or normal anxiety symptoms. Also, regarding stress, 29(48.33%), 13(21.66%) &7(11.7%) patients had mild, moderate,

and severe anxiety features while 6(10%) had reported no or normal stress symptoms.

Correlation between Globus symptoms (GESTS) and Psychological distress score (DASS-21) [Table 2]: Correlation tests were used to find the association between the GEST & DASS scores. The result shows a significant positive co-relation between GESTS and DASS (D) ($r= 0.340$, $p=0.008$) as well as between GESTS and DASS (A) ($r=0.327$, $p=0.011$). However, there was no significant correlation found between GESTS & DASS(S) ($r=0.069$, $p=0.599$).

Table 1: Socio-demographic Characteristics of the Patients

| Variable | Total (N=60) | | |
|-----------------------|--------------------|----------------|-------|
| | Frequency (n) | Percentage (%) | |
| Age (Mean age-33.16) | <33.16yrs | 38 | 63.33 |
| | >33.16yrs | 22 | 36.67 |
| Sex | Male | 26 | 43.33 |
| | Female | 34 | 56.67 |
| Education | Illiterate | 10 | 16.66 |
| | Up to primary | 08 | 13.33 |
| | Up to High School | 22 | 36.66 |
| | Up to intermediate | 14 | 23.33 |
| | Graduate | 04 | 6.66 |
| | Postgraduate | 02 | 3.33 |
| Marital Status | Unmarried | 16 | 26.67 |
| | Married | 44 | 73.33 |
| Occupation | Students | 08 | 13.33 |
| | Housewife | 26 | 43.33 |
| | Employed | 2 | 3.33 |
| | Unemployed | 4 | 6.66 |
| | Business | 16 | 26.66 |
| | Farmer | 4 | 6.66 |
| Family Type | Nuclear | 18 | 30 |
| | Joint | 42 | 70 |
| Religion | Hindu | 56 | 93.33 |
| | Muslim | 04 | 6.67 |
| Socio-economic status | Lower middle | 32 | 53.34 |
| | Upper lower | 26 | 43.33 |
| | Lower | 02 | 3.33 |
| Residence | Rural | 40 | 66.67 |
| | Urban | 12 | 20.00 |
| | Semi -Urban | 08 | 13.33 |

Table 2: Correlation between severity of globus symptoms (GESTS) and Psychological distress (DASS-21)

| Correlation | Correlation Coefficient(r) | Significant Value(p) |
|-----------------|----------------------------|----------------------|
| GESTS Vs DASS-D | 0.340 | 0.008 |
| GESTS Vs DASS-A | 0.327 | 0.011 |
| GESTS Vs DASS-S | 0.069 | 0.599 |

Legends: GESTS= Glasgow Edinburgh Throat Scale, DASS-D= Depression, Anxiety and Stress Scale (Depression), DASS-A= Depression, Anxiety and Stress Scale (Anxiety), DASS-S= Depression, Anxiety and Stress Scale (Stress). *Correlation is significant at the 0.05 level.

Table 3: Distribution of patients according to Globus symptoms (GESTS) and DASS-21 scores

| Variable | Symptoms Severity | | | |
|----------|-------------------|-------------|-------------|-----------|
| | Asymptomatic | Mild | Moderate | Severe |
| GESTS | 6 (10%) | 32 (53.33%) | 18 (30%) | 4 (6.67%) |
| DASS-D | 7 (11.67%) | 30 (50%) | 19 (31.66%) | 4 (6.67%) |
| DASS-A | 8 (13.33%) | 32 (53.33%) | 17 (28.33%) | 3 (5%) |
| DASS-S | 6 (10%) | 29(48.33%) | 18(30.0%) | 7(11.67%) |

Legends: GESTS= Glasgow Edinburgh Throat Scale, DASS-D= Depression, Anxiety and Stress Scale (Depression), DASS-A= Depression, Anxiety

and Stress Scale (Anxiety), DASS-S=Depression, Anxiety and Stress Scale (Stress).

DISCUSSION

This was the hospital-based cross sectional study which assessed psychological distress in patients having Globus Pharyngeus at tertiary care hospital of Eastern Uttar Pradesh. A total of 60 patients were included in the study. Most of the patients were female (56.67%) and belonged to the middle-age groups (mean 33.16 years) and belonged to a rural area (66.66%), less educated and with lower socioeconomic status (43.33%). This finding is consistent with some previous studies.^[12-14] It may be due to many factors including violence against women, low social status, underappreciated domestic work, less pay, expected work as a homemaker and labourer, and difficulty for advancing in their careers.^[15] In this study patients of globus pharyngeus showed depressive, anxiety and stress symptoms in 88.33%, 86.67% and 90% of cases respectively. Among them mostly had mild to moderate severity of psychological distress. This finding suggestive of significant relationship between psychological factors and globus. Several studies have reported an increased number of stressful life events preceding symptom onset, suggesting that life stress might be a cofactor in symptom genesis and exacerbation. Indeed, up to 96% of patients with globus report symptom exacerbation during periods of high emotional intensity.^[16,17] Some studies have shown no differences in the psychological state of patients with globus compared to normal controls.^[18-20] However, some studies have reported that globus patients have a greater tendency for anxiety and depression than healthy controls.^[21-24]

In our study, significant positive correlations were found between the severity of globus symptoms (GESTS) and the psychological distress score in depressive (DASS-D) ($r=0.340$, $p=0.008$) and anxiety (DASS-A) ($r=0.327$, $p=0.011$) items respectively. This finding again suggests that psychological factors and globus are linked to some extent. However, a direct causal relationship was not established between them, and further study with large sample size needed for better understanding.

Limitations

It was a hospital based cross sectional study with a small sample size. Furthermore, it was limited to a single-centered study of eastern Uttar Pradesh. So, the study's findings could not be generalised to the general population. So further studies with large sample size, multicentred settings and with case-controlled or cohort studies design would give more confirmatory result.

CONCLUSION

This study emphasizes that psychological distress plays a significant role in symptom production of Globus. Co-morbid mild depressive and anxiety

symptoms are commonly occurred. Thus, patients with globus symptoms should be screened regularly for psychiatric illness. There is need for an integrated treatment plan including both pharmacological and psychotherapeutic interventions for a comprehensive bio-psychosocial approach.

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