

# ETIOLOGY AND MANAGEMENT OF GLOBUS PHARYNGEUS

<sup>1</sup>WASEEM AHMAD SHAH, <sup>2</sup>FOUZIA NAZIR

<sup>1</sup>ENT SPECIALIST, JLNH HOSPITAL, SRINAGAR, J&K.

<sup>2</sup>ASSISTANT PROFESSOR, DEPT. OF COMMUNITY MEDICINE, GOVT. MEDICAL COLLEGE, ANANTNAG, J&K.

**Abstract:** Globus pharyngeus is a common clinical condition. Globus pharyngeus is a persistent or intermittent non-painful sensation of a lump or foreign body in the throat. It is a commonly encountered clinical condition that is usually long-lasting, difficult to treat, and has a tendency to recur. Furthermore, due to the uncertain etiology of globus, it remains difficult to establish standard investigation and treatment strategies for affected patients. As a first step for managing globus, careful history taking and nasolaryngoscopy are essential. The aetiology of globus is still unclear and remains difficult to establish standard investigation and treatment strategies for affected patients. Given the benign nature of globus pharyngeus, in most cases, reassurance rather than treatment or extensive investigation with rigid oesophagoscopy or contrast swallows is all that is needed. Speech and language therapy, anti-depressants, and cognitive-behavioral therapy can be helpful in patients whose symptoms persist despite negative investigations.

**Keywords:** Laryngopharyngeal reflux, Globus, Proton pump inhibitor, Hysterical

## Introduction

Globus pharyngeus, the sensation of something stuck in the throat, has been noted since the time of Hippocrates. Purcell first used the term globus hystericus in the early 18th century [2]. In 1968, Malcomson [1] suggested the term globus pharyngeus as a more accurate description since not all patients with globus were either hysterical or female.

Typically, globus is relieved by ingestion of solids or liquids and tends to be worse on dry swallows. Globus may be associated with throat irritation, soreness, dryness, catarrh, or constant throat clearing. It forms a large part of ENT practice and may account for about 4% of referrals to our outpatient clinics [3]. The prevalence is much higher in the general population as most people may not present to hospital with it. A recent study by Ali and Wilson [4] found that up to 78% of patients presenting to non-ENT clinics had had globus-type symptoms.

## Aetiology

Many factors have been postulated to cause globus symptoms however none have been proven definitively. These causes range from cricopharyngeal spasm, lingual tonsil, granular pharyngitis, cervical osteophytosis, hiatus hernia, gastroesophageal reflux, sinusitis, post nasal drip and goitre through to psychiatric causes [4].

Heterotopic gastric mucosa has been found in some patients with globus pharyngeus and could be a potential aetiology [5]. The location of the heterotopic gastric mucosa has been found in the post-cricoid area and cervical oesophagus on rigid pharyngoesophagoscopy [6]. Some patients have an abnormally curled epiglottis tip indenting the tongue base that can lead to persistent globus pharyngeus symptoms [7].

Interestingly, recent research has suggested that those with autoimmune conditions have a significantly increased prevalence of globus symptoms when compared to the healthy population [8]. Furthermore, there has been an association of globus pharyngeus and allergy

The reflux of stomach contents into the laryngopharynx, causing irritation and inflammation, is a contentious theory to explain the cause of globus pharyngeus. Studies have suggested that night time exposure to reflux could be a contributory factor in LPR as several physiological changes occur during sleep. These include prolonged oesophageal acid contact time, decreased upper oesophageal sphincter pressure, increased gastric acid secretion, decreased salivation, decreased swallowing and a decrease in conscious perception of acid [9]. It is the authors' view that laryngopharyngeal reflux is likely to be a cause of the globus sensation in a sub-group of individuals, but that this is unlikely to explain the problem of globus pharyngeus in its entirety.

## DIAGNOSIS

There has been no consensus regarding how best to diagnose and manage globus. A study of United Kingdom-based ENT specialists found that 14% performed no tests on globus patients but rather simply prescribed antacid medication if clinically indicated [22]. The remaining 86% investigated globus symptoms in a variety of ways, including rigid endoscopy (61%), barium swallow (56%), or a combination of these methods (17.5%).

Examination is usually unremarkable [23] however signs found during flexible nasendoscopy such as posterior laryngeal oedema, true vocal fold oedema and pseudodiverticulum [15] may be indicators of laryngopharyngeal reflux. These are not diagnostic however, as they have been reported in up to 70% of the general population [24].

Investigations previously used to identify the causes of globus symptoms are numerous but the evidence regarding their usefulness within normal practice is controversial. Clinicians often utilise investigations to rule out malignancy in a patient with globus symptoms.

Such investigations are described below.

### **24 Hours pH Monitoring**

The 24 hour dual sensor ambulatory pH monitoring, which is considered by some to be the gold standard in detecting gastroesophageal reflux, has been used to investigate any links between globus pharyngeus and acid reflux. Mixed conclusions have been found with some investigators reporting no findings of reflux and others reporting that extraesophageal reflux was proven in up to 32.6% of patients with pure globus pharyngeus [10].

### **Barium swallow**

Barium swallow studies have been reported to identify benign lesions in up to one-third of patients with globus, and the most common findings include hiatal hernia and/or reflux (8%-18%), cervical osteophytes (0.4%-23%), and cricopharyngeal spasm (2.2%)[11,12]. However, given the prevalence of these findings in the general population, it is difficult to link these disorders to globus[13]. Two studies demonstrated that barium swallow did not identify any malignancy in typical globus patients[12].

**Videofluoroscopy** Of 23 globus patients who received videofluoroscopy, 8 patients showed abnormal results; 5 had laryngeal aspiration, 2 had barium stasis in the vallecula and pyriform sinuses, and 4 had poor pharyngeal elevation[14]. Although it is unlikely that this indicates a causal relationship, videofluoroscopy may help to identify pharyngeal dysfunction in a substantial proportion of globus patients.

### **Flexible esophagogastrosocopy**

Endoscopy has been shown to be superior to barium swallow as a principal means of diagnosing upper aerodigestive tract malignancy[15]. Excellent views of the pyriform fossa and the postcricoid area can be achieved by insufflating air via flexible esophagogastrosocopy[16]. Moreover, this procedure enables full esophageal evaluation and diagnosis of reflux esophagitis and/or upper esophageal malignancy as a cause of globus. However, in general, endoscopy is known to have low sensitivity and to be of limited value for the diagnosis of extraesophageal GERD.

## **TREATMENT**

### **Laryngopharyngeal reflux (LPR) treatment**

Where there is uncertainty about the aetiology there will be uncertainty about the management. If patients have overt signs or symptoms suggestive of reflux in addition to globus, we would treat them aggressively with a proton pump inhibitor (PPI) twice daily and a reflux suppressant for at least 4 months [17]. We do not routinely use H<sub>2</sub> receptor antagonists. A study from the Cleveland Clinic using a regimen similar to ours has been found to be effective in controlling the symptoms of laryngopharyngeal reflux (LPR). Most of the ENT surgeons in the UK seem to be prescribing sub-optimal doses of PPIs [18].

### **Life Style Modifications**

Some lifestyle modifications have been suggested to help with gastroesophageal reflux and LPR.

Firstly, avoidance of certain foods can help. Citrus fruits, jams, jellies, tomatoes and some sauces such as barbeque sauce and salad dressings have pH below 4.6 and worsen reflux symptoms. Along with these, other foods such as curry, mustard and peppers can cause direct irritation and inflammation to the larynx [19]. Caffeine, alcohol, chocolate and peppermint all relax the oesophageal sphincters and increase reflux symptoms.

### **Speech and language therapy**

Speech and language therapists may have a role to play in managing globus patients. A few trials have shown that globus symptom scores do improve after a course of speech therapy [20,21]. What is not clear from these studies is whether there is a specific effect from speech therapy or if improvement is due to increased reassurance.

## **CONCLUSION**

Globus is a clinical diagnosis. Despite being a difficult clinical entity to manage, there are treatment strategies available. The cause of globus pharyngeus is believed to be related to laryngopharyngeal reflux however this still remains controversial. However there is no standard protocol for its diagnosis and management. The results of recent studies have strongly suggested that GERD is a major cause of globus, though this remains under considerable debate. Numerous other disorders, such as abnormal UES function, esophageal motility disorders, structural head and neck diseases, and psychological factors, have been suggested as potential causes of globus. Currently, careful history taking and nasolaryngoscopy are essential as a first step in managing globus. Given the benign nature of the condition, patients with typical globus do not appear to need further investigation. Treatment of reflux, if suspected, is essential and appropriate doses and regimes should be used in these cases. Reassurance, lifestyle modification and appropriate

follow up are often enough to alleviate some patient concerns however the globus sensation itself, in the majority of patients, will persist.

## References

1. Malcomson KG. Globus vel pharynges (a reconnaissance of proximal vagalmodalities) *The Journal of Laryngology & Otology*. 1968;82:219–230. [PubMed]
2. Purcell J. *A Treatise of Vapours or Hysterick Fits*. 2nd edition. London, UK: Edward Place; 1707.
3. H. Rowley, T. P. O'Dwyer, A. S. Jones and C. I. Timon, "The Natural History of Globus Pharyngeus," *Laryngo- scope*, Vol. 105, No. 10, 1995, pp. 1118-1121. [doi:10.1288/00005537-199510000-00019](https://doi.org/10.1288/00005537-199510000-00019)
4. A. G. Kerr, Ed., "Scott-Brown's Otolaryngology," In: J. A. Wilson, Ed., *Laryngology and Head & Neck Surgery*, Vol. 5, Reed Educational and Professional Publishing Ltd., Oxford, 1997, pp. 1-31.
5. J. L. Lancaster, S. Gosh, R. Sethi and S. Tripathi, "Can Heterotopic Gastric Mucosa Present as Globus Pharyngeus?" *Journal of Laryngology & Otology*, Vol. 120, No. 7, 2006, pp. 575-578. [doi:10.1017/S0022215106001307](https://doi.org/10.1017/S0022215106001307)
6. A. Alaani, P. Jassar, A. T. Warfield, D. R. Goulesbrough and I. Smith, "Heterotopic Gastric Mucosa in the Cervical Oesophagus (Inlet Patch) and Globus Pharyngeus— An Under-Recognised Association," *Journal of Laryngology and Otology*, Vol. 121, No. 9, 2007, pp. 885-888. [doi:10.1017/S0022215106005524](https://doi.org/10.1017/S0022215106005524)
7. F. O. Agada, A. P. Coatesworth and A. R. Grace, "Reverted Epiglottis Presenting as a Variant of Globus Pharyngeus," *Journal of Laryngology & Otology*, Vol. 121, No. 4, 2007, pp. 390-392. [doi:10.1017/S0022215106003422](https://doi.org/10.1017/S0022215106003422)
8. L. M. Masterson, I. A. Srouji, P. Musonda and D. G. I. Scott, "Autoimmune Disease as a Risk Factor for Globus Pharyngeus: A Cross-Sectional Epidemiological Study," *Clinical Otolaryngology*, Vol. 36, No. 1, 2011, pp. 24-29. [doi:10.1111/j.1749-4486.2010.02243.x](https://doi.org/10.1111/j.1749-4486.2010.02243.x)
9. P. Jarunchinda, A. Saengsapawiriya, S. Chakkaphak, S. Somnuean and K. Petsrikun, "The Study of Allergic Skin Test in Patients with Globus Pharyngeus: A Preliminary Report," *Journal of the Medical Association of Thailand*, Vol. 92, No. 4, 2009, pp. 531-536.
10. Koufman J, Sataloff RT, Toohill R. Laryngopharyngeal reflux: consensus conference report. *J Voice*. 1996;10:215–216. [PubMed]
11. Wilson JA, Heading RC, Maran AG, Pryde A, Piris J, Allan PL. Globus sensation is not due to gastro-oesophageal reflux. *Clin Otolaryngol Allied Sci*. 1987;12:271–275. [PubMed]
12. Back GW, Leong P, Kumar R, Corbridge R. Value of barium swallow in investigation of globus pharyngeus. *J Laryngol Otol*. 2000;114:951–954. [PubMed]
13. Cathcart R, Wilson JA. Lump in the throat. *Clin Otolaryngol*. 2007;32:108–110. [PubMed]
14. Chen CL, Tsai CC, Chou AS, Chiou JH. Utility of ambulatory pH monitoring and videofluoroscopy for the evaluation of patients with globus pharyngeus. *Dysphagia*. 2007;22:16–19. [PubMed]
15. Levine B, Nielsen EW. The justifications and controversies of panendoscopy--a review. *Ear Nose Throat J*. 1992;71:335–340, 343. [PubMed]
16. Takwoingi YM, Kale US, Morgan DW. Rigid endoscopy in globus pharyngeus: how valuable is it? *J Laryngol Otol*. 2006;120:42–46. [PubMed]
17. McGlashan JA, Johnstone LM, Sykes J, Strugala V, Dettmar PW. The value of a liquid alginate suspension (Gaviscon Advance) in the management of laryngopharyngeal reflux. *European Archives of Oto-Rhino-Laryngology*. 2009;266(2):243–251. [PubMed]
18. Karkos PD, Benton J, Leong SC, et al. Trends in laryngopharyngeal reflux: a British ENT survey. *European Archives of Oto-Rhino-Laryngology*. 2007;264(5):513–517. [PubMed]
19. H. Rowley, T. P. O'Dwyer, A. S. Jones and C. I. Timon, "The Natural History of Globus Pharyngeus," *Laryngo- scope*, Vol. 105, No. 10, 1995, pp. 1118-1121. [doi:10.1288/00005537-199510000-00019](https://doi.org/10.1288/00005537-199510000-00019)

20. H. S. Khalil, V. M. Reddy, M. Bos-Clark, A. Dowley, M. H. Pierce, C. P. Morris and A. E. Jones, "Speech Therapy in the Treatment of Globus Pharyngeus: How We Do It," *Clinical Otolaryngology*, Vol. 36, No. 4, 2011, pp. 371-392. [doi:10.1111/j.1749-4486.2011.02326.x](https://doi.org/10.1111/j.1749-4486.2011.02326.x)
21. P. Burns and C. Timon, "Thyroid Pathology and the Globus Symptom: Are They Related? A Two Year Prospective Trial," *Journal of Laryngology and Otology*, Vol. 121, No. 3, 2007, pp. 242-245. [doi:10.1017/S0022215106002465](https://doi.org/10.1017/S0022215106002465)
22. Webb CJ, Makura ZG, Fenton JE, Jackson SR, McCormick MS, Jones AS. Globus pharyngeus: a postal questionnaire survey of UK ENT consultants. *Clin Otolaryngol Allied Sci.* 2000;25:566-569. [PubMed]
23. C. J. Webb, Z. G. G. Makura, J. E. Fenton, S. R. Jackson, M. S. McCormick and A. S. Jones, "Globus Pharyngeus: A Postal Questionnaire Survey of UK ENT Consultants," *Clinical Otolaryngology*, Vol. 25, No. 6, 2000, pp. 566-569. [doi:10.1046/j.1365-2273.2000.00386.x](https://doi.org/10.1046/j.1365-2273.2000.00386.x)
24. Y. M. Takwoingi, U. S. Kale and D. W. Morgan, "Rigid Endoscopy in Globus Pharyngeus: How Valuable Is It?" *Journal of Laryngology & Otology*, Vol. 120, No. 1, 2006, pp. 42-46. [doi:10.1017/S0022215105006043](https://doi.org/10.1017/S0022215105006043)

