

The diagnosis and management of globus pharyngeus: our perspective from the United Kingdom

Petros D. Karkos^a and Janet A. Wilson^b

^aDepartment of Otolaryngology, Liverpool University Hospitals, Liverpool and ^bDepartment of Otolaryngology, The Freeman Hospital, Newcastle University, Newcastle upon Tyne, UK

Correspondence to Mr Petros Karkos, MPhil, AFRCs, Specialist Registrar in Otolaryngology, 36 Hopkinsons Court, Walls Avenue, Chester, CH1 4LN, UK
Tel: +44 1244340098; e-mail: pkarkos@aol.com

Current Opinion in Otolaryngology & Head and Neck Surgery 2008, 16:1–4

Purpose of review

To review recent literature on diagnostic and treatment options for globus pharyngeus.

Recent findings

There are no controlled studies looking at the use of proton pump inhibitors specifically for globus. The small volume of level I evidence has failed to demonstrate superiority of proton pump inhibitors over placebo for treatment of laryngopharyngeal reflux symptoms (including globus). A recent pilot nonplacebo controlled study has shown promising results for treating laryngopharyngeal reflux symptoms with liquid alginate suspension. The role of cognitive-behavioural therapy may hold hope for patients with refractory symptoms. A small randomized trial showed promising results for treating globus with speech therapy, but larger trials are required. There is no evidence for the use of antidepressants or anxiolytics.

Summary

After many decades of interest, the most popular organic theory that 'A lump in the throat' is reflux related is still challenged by lack of strong evidence for empiric antacid treatment of this symptom. Globus pharyngeus is a clinical diagnosis and not a diagnosis of exclusion and over investigating these patients is unnecessary. Complete history and otolaryngological examination, fiberoptic laryngoscopy or transnasal esophagoscopy with reassurance and monitoring of symptom progress with validated symptom questionnaires appear to remain the mainstay management.

Keywords

globus pharyngeus, laryngopharyngeal reflux, lump, speech therapy, throat

Curr Opin Otolaryngol Head Neck Surg 16:000–000
© 2008 Wolters Kluwer Health | Lippincott Williams & Wilkins
1068-9508

Introduction

Globus pharyngeus, a feeling of something stuck or a sensation of a lump or tightness in the throat, is a well defined clinical symptom that is persistent, difficult to treat with a tendency to recur. It is a clinical diagnosis and not a diagnosis of exclusion. The presence of 'high risk' symptoms such as weight loss, dysphagia, throat pain and lateralization of pathology is the only absolute indication for further investigations [1]. There continue to be anecdotal reports of globus linked to hypopharyngeal cancer – but this association remains rare [2]. Globus accounts for around 4% of otolaryngological referrals and can affect up to 6% of the general population at any time [3]. Patients suffering from this sensory abnormality of the throat have been found to have no higher scores for hysteria than healthy individuals and the term 'globus hystericus' has been abandoned. Today, patients are referred usually to laryngologists and gastroenterologists and almost never to psychiatrists, even though globus is the fourth most discriminating symptom of somatization disorder, after vomiting, aphonia and painful extremities [4]. In the past five decades the most popular organic theory for the

mechanism of this abnormal sensation is that globus can be a manifestation of laryngopharyngeal reflux (LPR) [5] or caused by oesophageal dysmotility [6].

Diagnosis

The diagnosis of globus is based on a detailed history, examination and no or minimal investigations. The history should cover patient's symptom description and may involve monitoring of symptom progress with validated throat scale questionnaires, specifically designed for globus patients [7]. Important points to identify are the pattern of a throat clearing/dry swallowing cycle, 'high-risk' symptoms or patients, associated reflux and psychological history such as major adverse life events, panic attacks and anxiety. Globus is also linked to night-time heartburn, which appears resistant to PPI therapy [8]. Nonetheless, the response of globus to antireflux measures is far from complete, confirming a multifactorial aetiology [9].

Examination should include complete otolaryngological assessment with emphasis on neck/thyroid palpation and

2 Laryngology and bronchoesophagology

fibreoptic laryngoscopy, ideally with video facilities for the patient to watch and be reassured that there is no observable abnormality. The introduction of transnasal esophagoscopy (TNE) [10–12] as a diagnostic tool has the potential to offer more extensive office assessment by combining fibreoptic laryngoscopy with evaluation of esophageal pathology, providing a ‘one stop’ diagnostic service. This additional examination will further reduce the need for endoscopy/‘reassuroscopy’ under general anaesthesia (with its associated risks of perforation).

Contrast radiological investigations – barium swallow and videofluoroscopy – have little place in the assessment of globus patients. Although they may identify benign esophageal pathology such as hiatus hernia, cervical osteophytes and cricopharyngeal spasm, all of these are very common in the general population. Furthermore, cost effectiveness studies have shown that TNE can be superior to and less expensive than barium swallow in diagnosing esophageal pathology [13].

Dual probe pH studies especially when combined with multichannel intraluminal impedance are the gold standard for patients with persistent globus on antacid treatment [14]. Nevertheless, there is still no consensus regarding the normal values of hypopharyngeal pH and the rate of reflux found in globus patients depends principally on patient selection, ranging from only 15% to nearer 58% [15].

Treatment options

Antireflux treatment, speech therapy, relaxation techniques, cognitive behavioural therapy and antidepressants are some of the established options for attempting to treat globus patients.

Antireflux treatment and evidence base

There is a lot of scepticism in the otolaryngology community and in primary care surrounding LPR. Globus and other symptoms, such as constant throat clearing, chronic cough, hoarseness, catarrh and choking episodes may be reflux-related [15]. In a British survey of otolaryngologists, attempting to identify current trends in LPR management, it was evident that the most common symptoms (apart from classic heartburn) for which proton pump inhibitors (PPIs) are prescribed are globus (73%), followed by choking episodes and chronic cough [16]. In primary care, PPIs are prescribed for 80% of patients with a primary symptom of heartburn, but for only 2% of globus patients [17].

There are no controlled studies looking at the use of PPIs specifically for globus. Recommendations for the empiric treatment of suspected LPR with PPIs – by far the most

common ear nose and throat practice in the United Kingdom [16] – are based on poor levels of evidence from uncontrolled studies [9]. The small volume of level I evidence has failed to demonstrate superiority of PPIs over placebo for treatment of suspected LPR [18], which may reflect treatment resistance – or more likely the fact that reflux can be demonstrated in only a minority of sufferers [9].

In contrast to the earlier mentioned negative results, a recent pilot nonplacebo controlled study attempted to assess the value of non-PPI antacid treatment for suspected LPR (including globus) symptoms. This clinical study did not quantify acid exposure, but assessed response of the Reflux Symptom Index, and the Reflux Finding Score, to a liquid alginate suspension (Gaviscon Advance) compared with control (no treatment). A total of 49 patients were randomized into the open, parallel group study; 24 patients were randomized to receive 10 ml liquid Gaviscon four times daily after meals and at bedtime, and 25 patients into the control group (no treatment). Patients were assessed pretreatment and at 2, 4 and 6 months posttreatment. Significant improvement in symptom scores and clinical findings were achieved with Gaviscon compared with no treatment [19].

Of course, the difficulties in treating the atypical manifestations of reflux arise from the inability to accurately diagnose LPR. More randomized controlled trials are required. Until then recommendations will continue to depend on expert opinions and uncontrolled studies. Surgical therapy of severe, drug-resistant reflux remains anecdotally successful for a range of symptoms, including globus [20].

Speech therapy/relaxation techniques

Globus is probably a multifactorial symptom and is often accompanied by other throat symptoms, such as dysphonia, throat clearing and catarrh. Wareing *et al.* [21] believed that this throat sensation can be caused by excessive pharyngolaryngeal tension, therefore, neck and shoulder exercises to reduce the laryngeal muscle tension general relaxation techniques, together with voice exercises and voice hygiene may be of benefit especially for those whose globus is accompanied by dysphonia. In an attempt to assess the value of speech therapy in globus patients, Khalil *et al.* [22] recruited 36 patients and randomized them in a speech therapy group and a reassurance group. Outcome measures used were duration and type of globus symptoms, severity of globus symptoms on a visual analogue scale, fibreoptic laryngoscopy, full blood count and barium swallow. At the end of 3 months, patients in both groups marked on the visual analogue scale the severity of their symptoms. There was a significant improvement in the globus

symptom scores in the speech therapy group compared with preintervention scores. There was also a significant improvement in globus symptoms in the speech therapy group compared with controls. The authors concluded that patients with globus pharyngeus might benefit from speech therapy.

Another, small uncontrolled British study [23] of 14 globus patients tracked therapeutic response using the Glasgow and Edinburgh Throat Scale (GETS) [24]. A baseline period was used to assess the pretreatment stability of symptoms. This was followed by a group therapy session and a further reassessment. Videofluoroscopy was conducted before and after therapy. The improved GETS scores after therapy were hard to interpret as there were also improvements seen during the pretreatment observation period. It was thus unclear which aspects of the treatment were effective. Further research is needed to distinguish whether speech therapy has a specific effect or whether globus sufferers benefit from general attention and reassurance alone.

Cognitive behavioural therapy/antidepressants

Globus patients are rarely referred to psychiatrists or psychologists even though globus is one of the most common discriminating symptoms of somatization disorders [4]. The practice may simply reflect the patients' reluctance to attend a psychotherapy session but there is established evidence that globus sufferers can be depressed or anxious with panic attacks and may have an excess of other previous medically unexplained symptoms [25]. Minor day-to-day 'hassles' and/or major adverse life events also appear to be more common in the globus groups [25,26].

In an attempt to rank the levels of evidence a recent metaanalysis of randomized clinical trials on treatment of patients with somatoform disorders and medically unexplained symptoms was performed. [Cognitive behavioral therapy](#) emerged as the best-established treatment for a variety of somatoform disorders and medically unexplained symptoms [27*]. There has not yet been a substantial trial of CBT in globus patients, despite good evidence of therapeutic efficacy in other medically unexplained symptoms such as irritable bowel syndrome or tinnitus.

Antidepressants for globus have been studied in small series but there is no strong evidence for them. The fact is that most patients are reluctant to start treatment or when they do, tend to discontinue therapy early due to side effects. Some tricyclic drugs though, when used in patients with lower baseline levels of anxiety may be quite effective.

Whatever the underlying mechanism, the majority of globus sufferers describe a vicious circle of throat clearing and dry swallowing. Indeed throat clearing is the most common single symptom endorsed when direct enquiry is made of a voice clinic population [28]. Increasing patient awareness of this phenomenon seems intuitively likely to help break the vicious cycle.

Conclusion

Overall, only if there are atypical features in the history and clinical examination that raise the clinician's suspicion should any investigations to exclude sinister pathology be embarked upon. Nevertheless, 'typical' globus is rarely if ever associated with cancer. Patients whose primary goal is exclusion of cancer may be managed as a 'one-stop' clinic visit. The increasing availability of transnasal esophagoscopy at such visits may eventually shed light on the still-uncertain nature of the relationship of reflux and LPR. At the present time, however, it appears that most pharyngeal symptoms benefit little from PPIs, and the optimum therapeutic strategy for globus sensation remains elusive.

References and recommended reading

Papers of particular interest, published within the annual period of review, have been highlighted as:

- of special interest
- of outstanding interest

Additional references related to this topic can also be found in the Current World Literature section in this issue (pp. 000–000).

- 1 Cathcart R, Wilson JA. Lump in the throat. *Clin Otolaryngol* 2007; 32:108–110.
 - 2 Tsikoudas A, Ghuman N, Riad MA. Globus sensation as early presentation of hypopharyngeal cancer. *Clin Otolaryngol* 2007; 32:452–456.
 - 3 Moloy PJ, Charter R. The globus symptom. Incidence, therapeutic response, and age and sex relationships. *Arch Otolaryngol* 1982; 108:740–744.
 - 4 Othmer E, DeSouza C. A screening test for somatization disorder (hysteria). *Am J Psychiatry* 1985; 142:1146–1149.
 - 5 Mair IW, Schroder KE, Modalsli B, Maurer HJ. Aetiological aspects of the globus symptom. *J Laryngol Otol* 1974; 88:1033–1040.
 - 6 Wilson JA, Pryde A, Piris J, *et al.* Pharyngoesophageal dysmotility in globus sensation. *Arch Otolaryngol Head Neck Surg* 1989; 115:1086–1090.
 - 7 Ali KH, Wilson JA. What is the severity of globus sensation in individuals who have never sought healthcare for it? *J Laryngol Otol* 2007; 121:865–868.
- A study on the severity of globus-type symptoms, as measured by the only dedicated Globus scale, in individuals who had never sought healthcare.
- 8 Nocon M, Labenz J, Jaspersen D, *et al.* Nighttime heartburn in patients with gastroesophageal reflux disease under routine care. *Digestion* 2008; 77:69–72.
 - 9 Sinn DH, Kim JH, Kim S, *et al.* Response rate and predictors of response in a short-term empirical trial of high-dose rabeprazole in patients with globus. *Aliment Pharmacol Ther* 2008; 27:1275–1281.
 - 10 Postma GN. Transnasal esophagoscopy. *Curr Opin Otolaryngol Head Neck Surg* 2006; 14:156–158.
 - 11 Postma GN, Cohen JT, Belafsky PC, *et al.* Transnasal esophagoscopy: revisited (over 700 consecutive cases). *Laryngoscope* 2005; 115:321–323.
 - 12 Price T, Sharma A, Snelling J, *et al.* How we do it: the role of trans-nasal flexible laryngo-oesophagoscopy (TNFLO) in ENT: one year's experience in a head and neck orientated practice in the UK. *Clin Otolaryngol* 2005; 30:551–556.
 - 13 McPartlin DW, Nouraei SA, Tatla T, *et al.* How we do it: transnasal fiberoptic oesophagoscopy. *Clin Otolaryngol* 2005; 30:547–550.

4 Laryngology and bronchoesophagology

- 14 Anandasabapathy S, Jaffin BW. Multichannel intraluminal impedance in the evaluation of patients with persistent globus on proton pump inhibitor therapy. *Ann Otol Rhinol Laryngol* 2006; 115:563–570.
- 15 Koufman JA. The otolaryngologic manifestations of gastroesophageal reflux disease (GERD): a clinical investigation of 225 patients using ambulatory 24-h pH monitoring and an experimental investigation of the role of acid and pepsin in the development of laryngeal injury. *Laryngoscope* 1991; 101:1–78.
- 16 Karkos PD, Benton J, Leong SC, *et al.* Trends in laryngopharyngeal reflux: a British ENT survey. *Eur Arch Otorhinolaryngol* 2007; 264:513–517.
- 17 Karkos PD, Thomas L, Temple RH, Issing WJ. Awareness of general practitioners towards treatment of laryngopharyngeal reflux: a British survey. *Otolaryngol Head Neck Surg* 2005; 133:505–508.
- 18 Karkos PD, Wilson JA. Empiric treatment of laryngopharyngeal reflux with proton pump inhibitors: a systematic review. *Laryngoscope* 2006; 116:144–148.
- 19 McGlashan JA, Johnstone LM, Sykes J, *et al.* The value of a liquid alginate suspension (Gaviscon Advance) in the management of laryngopharyngeal reflux. *Eur Arch Otorhinolaryngol* 2008 [Epub ahead of print].
- 20 Antoniou SA, Delivorias P, Antoniou GA, *et al.* Symptom-focused results after laparoscopic fundoplication for refractory gastroesophageal reflux disease—a prospective study. *Langenbecks Arch Surg* 2008 [Epub ahead of print].
- 21 Wareing M, Elias A, Mitchell D. Management of globus sensation by the speech therapist. *Logoped Phoniatr Vocol* 1997; 22:39–42.
- 22 Khalil HS, Bridger MW, Hilton-Pierce M, Vincent J. The use of speech therapy in the treatment of globus pharyngeus patients. A randomised controlled trial. *Rev Laryngol Otol Rhinol (Bord)* 2003; 124:187–190.
- 23 Millichap F, Lee M, Pring T. A lump in the throat: should speech and language therapists treat globus pharyngeus? *Disabil Rehabil* 2005; 27:124–130.
- 24 Deary IJ, Wilson JA, Harris MB, MacDougall G. Globus pharyngis: development of a symptom assessment scale. *J Psychosom Res* 1995; 39:203–213.
- 25 Deary IJ, Smart A, Wilson JA. Depression and 'hassles' in globus pharyngis. *Br J Psychiatry* 1992; 161:115–117.
- 26 Harris MB, Deary IJ, Wilson JA. Life events and difficulties in relation to the onset of globus pharyngis. *J Psychosom Res* 1996; 40:603–615.
- 27 Kroenke K. Efficacy of treatment for somatoform disorders: a review of
 - randomized controlled trials. *Psychosom Med* 2007; 69:881–888.
 This was a well designed systematic review on the value of cognitive behavioural therapy for medically unexplained symptoms.
- 28 Wilson JA, Webb A, Carding PN, *et al.* The Voice Symptom Scale (VoiSS) and the Vocal Handicap Index (VHI): a comparison of structure and content. *Clin Otolaryngol* 29:169–174.

MOO

Manuscript No. **264**

Current Opinion in Rheumatology
Typeset by Thomson Digital
for Lippincott Williams & Wilkins

Dear Author,

During the preparation of your manuscript for typesetting, some queries have arisen. These are listed below. Please check your typeset proof carefully and mark any corrections in the margin as neatly as possible or compile them as a separate list. This form should then be returned with your marked proof/list of corrections to the Production Editor.

QUERIES: to be answered by AUTHOR/EDITOR

QUERY NO.	QUERY DETAILS	RESPONSE
	No queries.	