Managing a patient with globus pharyngeus

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ABSTRACT

A woman aged 47 years reported the feeling of a lump in her throat for the past year. The sensation was present intermittently and usually improved when she ate. She noted it was worse with dry swallows when she felt like a tablet was stuck in her throat. The sensation had become more persistent in recent weeks leading her to worry that she had cancer. She had no cough, sore throat or hoarseness. There were no precipitating factors and no symptoms of weight loss, dysphagia, odynophagia or change in her voice. She had smoked previously and rarely had heartburn. She had no other anxieties and was not under any unusual stress. She was initially assessed by an ear, nose and throat surgeon, who found no abnormalities on examination of her neck, throat and oral cavity. Nasolaryngoscopy was normal. An upper gastrointestinal endoscopy was organised and reported a hiatus hernia, but a 3-month trial of a proton pump inhibitor did not have any impact on her symptoms. The benign nature of her symptoms was discussed at her gastroenterology follow-up appointment. She was discharged back to primary care with a final diagnosis of 'globus'. A trial of speech therapy, cognitive behavioural therapy or amitriptyline would be recommended if her symptoms became more troublesome in future.

INTRODUCTION

Globus was first described by Hippocrates 2500 years ago¹, the term 'globus' meaning 'ball' in Latin. Globus pharyngeus classically consists of a recurrent uncomfortable sensation of a foreign body or lump in the throat which may improve with eating²; however, the term can be applied to any abnormal sensation around the pharynx. Globus is a very common symptom with a population-based study from the USA reporting that 12.5% of otherwise healthy people reported globus.³ An earlier study of 147 healthy volunteers in the UK found that the 45% of respondents had experienced the symptom.⁴ Both studies described a

female predominance of approximately 2:1. Patients with globus are usually seen in ear, nose and throat (ENT) clinics and represent up to 4% of new patients seen in ENT clinics.⁵ Interestingly, a study of 4330 consecutive patients found no gender difference in the prevalence of globus in patients older than 50 years, but in those younger than 50 years, globus was three times more common in women. Female gender and severity of symptoms are the only factors reported to be associated with those who consult their doctor with globus.^{6,7} Most patients present in middle age, with a median age of 43 years (range 22–71 years) in one series from a psychosomatic clinic.⁸ Patients in this cohort had symptoms for a median of 2 years (range 1 month to 36 years). Globus is classified as a functional oesophageal disorder with no clearly defined organic pathology.² The exact aetiology of globus remains unknown. Historically, globus was thought to be primarily psychological in origin, hence the original name 'globus hystericus'. Increased rates of anxiety, low mood and neuroticism have been reported in these individuals.^{7,9,10} Evidence that symptoms develop after significant life events is conflicting, with some studies finding a significant association with periods of high stress^{4,11} and others not.^{6,8,12} It has been considered as a manifestation of gastro-oesophageal reflux disease (GORD) based on anecdotal evidence and small uncontrolled studies.^{12,13} However, patients with globus have a similar prevalence of abnormal acid exposure on oesophageal pH studies when compared with controls.^{14,15} GORD may play a role in a small subset of patients, as it has been reported that those with less marked psychological symptoms are more likely to respond to proton pump inhibitor (PPI) therapy.¹⁶ In a Japanese case series, in those resistant to PPI therapy an

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association between globus and oesophageal dysmotility, including achalasia, has been reported.¹⁷ However, patients with symptoms of both globus and dysphagia were included and there is no evidence for an association in the absence of dysphagia.¹⁸ Visceral hypersensitivity¹⁹ and abnormal upper oesophageal sphincter function.^{14 20} have also been suggested as possible aetiological factors.

CLINICAL FEATURES

The diagnosis of globus is clinical and should be considered when a patient reports a history of a foreign body sensation in the throat. Classically, patients describe a ball-like sensation in the throat, but others describe itching, swelling or the sensation of a scratch or hair in the back of the throat.²¹ The symptoms tend to occur in the absence of swallowing, thus distinguishing globus from dysphagia or odynophagia.² Globus often improves with eating, which may lead to weight gain.²¹ The distinction from dysphagia is an important one, as the diagnostic algorithm and need for endoscopy or barium radiology is different. Patients often complain of other symptoms which are suggestive of pharyngeal irritation, including throat clearing and chronic

cough. In up to 75% of patients symptoms can persist for years.^{22 23}

The main aim of clinical assessment is to identify whether the patient is at significant risk of aerodigestive malignancy and to elicit possible precipitating factors for globus in order to guide therapy. Alarm symptoms which may indicate significant organic disease include dysphagia, odynophagia, throat pain, weight loss, lateralisation of symptoms and hoarseness.¹ Risk factors for neoplasia include age >40 years, smoking and alcohol excess.

A history of frequent symptoms of heartburn and acid regurgitation predicts a clinical response to PPI therapy.^{24 25} Any specific anxieties should be explored, as unrecognised psychological distress has been associated with globus, particularly in female patients.²⁶

DIAGNOSIS AND INVESTIGATION

A diagnostic algorithm is suggested (see [figure 1](#)) based on the Rome IV criteria² (described in [box](#)). Fundamental to the diagnosis is a typical history. Should this be present, the patient should be reviewed by an ENT specialist, including mouth, throat and neck examination and nasolaryngoscopy. If this is unremarkable,

Figure 1 Suggested investigative flow chart for the investigation and diagnosis of globus pharyngeus.

Box Rome IV diagnostic criteria for globus pharyngeus

All criteria should be present for the preceding 3 months and the symptom should have started at least 6 months prior to diagnosis. Symptoms should be present at least once per week

1. Persistent or intermittent, painless sensation of a lump or foreign body in the throat with no structural lesion identified on physical examination, laryngoscopy or endoscopy
 - a. Occurrence of the sensation between meals
 - b. Absence of dysphagia or odynophagia
 - c. Absence of a gastric inlet patch in the proximal oesophagus.
2. Absence of evidence that gastro-oesophageal reflux or eosinophilic oesophagitis is causing symptoms
3. Absence of major oesophageal motor disorders (achalasia gastro-oesophageal junction obstruction, diffuse oesophageal spasm, jackhammer oesophagus, absent peristalsis).

an 8-week trial of PPI should be considered, particularly if typical gastro-oesophageal reflux symptoms are present.

Further investigations generate a very low diagnostic yield of organic pathology in the presence of typical symptoms and normal nasolaryngoscopy.^{1 27 28} A therapeutic trial of PPI therapy is a widely used strategy in ENT clinics,²⁹ but is unlikely to be positive unless frequent heartburn or acid regurgitation are present and psychological symptoms are absent.

Upper gastrointestinal endoscopy is recommended in the Rome IV guidelines to exclude an organic cause for symptoms, including a gastric inlet patch, despite the low yield of pathology in patients with typical globus symptoms. Ambulatory pH and impedance monitoring can be considered in those patients with associated symptoms of gastro-oesophageal reflux who have partially responded to PPI therapy, to determine if increasing acid suppression is likely to be beneficial. Manometry although recommended to exclude unrecognised dysmotility in the Rome IV criteria, is also likely to have a low diagnostic yield in the absence of symptoms of dysphagia. Patients should be made aware of these limitations prior to undergoing invasive investigations.

MANAGEMENT

There is a paucity of controlled data on effective treatments for globus. Therefore, reassurance and explanation of the benign nature of globus should always be the first line of management in those with typical symptoms and normal nasolaryngoscopy. Comparisons can be drawn with an itch which helps to explain why dry swallowing in response to symptoms should be avoided, as this will perpetuate the swallow sensation cycle.³⁰

Proton pump inhibitors

A trial of high-dose PPI therapy is a commonly recommended management strategy in patients with globus³¹ and has been incorporated into the Rome IV criteria.² This is based on the concept that laryngopharyngeal reflux is a common cause of globus.^{32 33} However, the most recent meta-analysis of seven placebo-controlled trials failed to show any benefit of PPI over placebo in patients with globus.³⁴ Jeon *et al* suggested in a prospective study that in up to 54% of patients, symptoms were improved by treatment with a PPI. Factors that increased the likelihood of symptom improvement included a shorter duration of symptoms (<3 months) and associated frequent acid reflux symptoms.²⁴

Speech therapy

Studies of speech therapy employing relaxation techniques have reported success in treating globus. Wareing *et al* reported improvement in 23 of 25 patients with complete resolution in 72% of cases.³⁵ This work was taken further by Khalil *et al*, who conducted a randomised controlled trial comparing speech therapy with reassurance.³⁶ Speech therapy entailed exercises which are thought to relieve pharyngolaryngeal tension. These included adopting a 'giggle posture' (in order to retract the false vocal cords), yawning and a wet swallow. They reported significant improvements in globus symptom scores after 3 months when compared with controls receiving reassurance only. Further studies are required to replicate this trial to determine whether the benefit is sustained over longer time periods.

Psychological treatments

Psychotherapeutic approaches are attractive given the high prevalence of anxiety in globus. Cognitive behavioural therapy (CBT) has been suggested for those with refractory symptoms.³⁷ This is because globus is considered to be a somatoform disorder for which CBT has been shown to be beneficial in randomised controlled trials.^{38 39} More recent work has explored hypnotherapy-assisted relaxation, which was reported to be of benefit in 9 out of 10 patients in a small uncontrolled case series, who had failed to respond to PPI therapy.⁴⁰ Finally, evidence for the use of antidepressants in globus comes from a small case series of patients with significant psychiatric comorbidity including major depression and agoraphobia.^{41 42}

Argon plasma coagulation of cervical inlet patch

A small randomised controlled study comparing argon plasma coagulation of a cervical oesophageal inlet patch with a sham procedure in 20 patients with globus demonstrated significantly improved symptoms scores in the treatment group.⁴³ This was sustained for a median of 17 months. Neumann *et al* demonstrated that although still uncommon (incidence 1.6%),

presence of an inlet patch in patients with globus was more common than in those without globus symptoms (OR 5.4, 95% CI 3.17 to 9.17) in a dataset of almost half a million endoscopies.⁴⁴ Other studies of ablation of cervical inlet patches in globus are uncontrolled or retrospective or report small sample sizes.^{45 46} Further randomised data are required before this therapy can be recommended outside of a clinical trial, despite the Rome IV criteria for globus pharyngeus recommending excluding gastric inlet patch at endoscopy.

CONCLUSION

Globus is a common idiopathic condition with no long-term health consequences. Serious aerodigestive disease can be excluded in those with typical symptoms and a normal ENT examination. Endoscopy and a trial of PPI therapy are commonly recommended, however, evidence for benefit and efficacy respectively is limited, particularly in the absence of gastro-oesophageal reflux symptoms. Addressing psychological factors leading to symptoms and speech therapy may be beneficial.

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REFERENCES

- Harar RP, Kumar S, Saeed MA, *et al.* Management of globus pharyngeus: review of 699 cases. *J Laryngol Otol* 2004;118:522–7.
- Aziz Q, Fass R, Gyawali CP, *et al.* Esophageal disorders. *Gastroenterology* 2016;150:1368–79.
- Drossman DA, Li Z, Andruzzi E, *et al.* U.S. householder survey of functional gastrointestinal disorders. prevalence, sociodemography, and health impact. *Dig Dis Sci* 1993;38:1569–80.
- Thompson WG, Heaton KW. Heartburn and globus in apparently healthy people. *Can Med Assoc J* 1982;126:46–8.
- Moloy PJ, Charter R. The globus symptom. Incidence, therapeutic response, and age and sex relationships. *Arch Otolaryngol* 1982;108:740–4.
- Batch AJ. Globus pharyngeus (Part I). *J Laryngol Otol* 1988;102:152–8.
- Deary IJ, Wilson JA, Kelly SW. Globus pharyngis, personality, and psychological distress in the general population. *Psychosomatics* 1995;36:570–7.
- Moser G, Wenzel-Abatz TA, Stelzeneder M, *et al.* Globus sensation: pharyngo-oesophageal function, psychometric and psychiatric findings, and follow-up in 88 patients. *Arch Intern Med* 1998;158:1365–73.
- Cook IJ, Dent J, Collins SM. Upper esophageal sphincter tone and reactivity to stress in patients with a history of globus sensation. *Dig Dis Sci* 1989;34:672–6.
- Deary IJ, Smart A, Wilson JA. Depression and 'hassles' in globus pharyngis. *Br J Psychiatry* 1992;161:115–7.
- Harris MB, Deary IJ, Wilson JA. Life events and difficulties in relation to the onset of globus pharyngis. *J Psychosom Res* 1996;40:603–15.
- Hill J, Stuart RC, Fung HK, *et al.* Gastroesophageal reflux, motility disorders, and psychological profiles in the etiology of globus pharyngis. *Laryngoscope* 1997;107:1373–7.
- Woo P, Noordzij P, Ross JA. Association of esophageal reflux and globus symptom: comparison of laryngoscopy and 24-hour pH manometry. *Otolaryngol Head Neck Surg* 1996;115:502–7.
- Corso MJ, Pursnani KG, Mohiuddin MA, *et al.* Globus sensation is associated with hypertensive upper esophageal sphincter but not with gastroesophageal reflux. *Dig Dis Sci* 1998;43:1513–7.
- Wilson JA, Heading RC, Maran AG, *et al.* Globus sensation is not due to gastro-oesophageal reflux. *Clin Otolaryngol Allied Sci* 1987;12:271–5.
- Siupsinskiene N, Adamonis K, Toohill RJ, *et al.* Predictors of response to short-term proton pump inhibitor treatment in laryngopharyngeal reflux patients. *J Laryngol Otol* 2008;122:1206–12.
- Tsutsui H, Manabe N, Uno M, *et al.* Esophageal motor dysfunction plays a key role in GERD with globus sensation – Analysis of factors promoting resistance to PPI therapy. *Scand J Gastroenterol* 2012;47:893–9.
- Selleslagh M, van Oudenhoove L, Pauwels A, *et al.* The complexity of globus: a multidisciplinary perspective. *Nat Rev Gastroenterol Hepatol* 2014;11:220–33.
- Chen CL, Szczesniak MM, Cook IJ. Evidence for oesophageal visceral hypersensitivity and aberrant symptom referral in patients with globus. *Neurogastroenterol Motil* 2009;21:1142–e96.
- Kwiatkiewicz MA, Mirza F, Kahrilas PJ, *et al.* Hyperdynamic upper esophageal sphincter pressure: a manometric observation in patients reporting globus sensation. *Am J Gastroenterol* 2009;104:289–98.
- Deary IJ, Wilson JA, Harris MB, *et al.* Globus pharyngis: development of a symptom assessment scale. *J Psychosom Res* 1995;39:203–13.
- Rowley H, O'Dwyer TP, Jones AS, *et al.* The natural history of globus pharyngis. *Laryngoscope* 1995;105:1118–21.
- Timon C, O'Dwyer T, Cagney D, *et al.* Globus pharyngis: long-term follow-up and prognostic factors. *Ann Otol Rhinol Laryngol* 1991;100(5 Pt 1):351–4.
- Jeon HK, Kim GH, Choi MK, *et al.* Clinical predictors for response to proton pump inhibitor treatment in patients with globus. *J Neurogastroenterol Motil* 2013;19:47–53.
- Tokashiki R, Yamaguchi H, Nakamura K, *et al.* Globus sensation caused by gastroesophageal reflux disease. *Auris Nasus Larynx* 2002;29:347–51.
- Deary IJ, Wilson JA, Mitchell L, *et al.* Covert psychiatric disturbance in patients with globus pharyngis. *Br J Med Psychol* 1989;62(Pt 4):381–9.
- Hajioff D, Lowe D. The diagnostic value of barium swallow in globus syndrome. *Int J Clin Pract* 2004;58:86–9.
- Takwoingi YM, Kale US, Morgan DW. Rigid endoscopy in globus pharyngis: how valuable is it? *J Laryngol Otol* 2006;120:42–6.
- Webb CJ, Makura ZG, Fenton JE, *et al.* Globus pharyngis: a postal questionnaire survey of UK ENT consultants. *Clin Otolaryngol Allied Sci* 2000;25:566–9.
- Cathcart R, Wilson JA. Lump in the throat. *Clin Otolaryngol* 2007;32:108–10.
- Divi V, Benninger MS. Diagnosis and management of laryngopharyngeal reflux disease. *Curr Opin Otolaryngol Head Neck Surg* 2006;14:124–7.
- Chevalier JM, Brossard E, Monnier P. Globus sensation and gastroesophageal reflux. *Eur Arch Otorhinolaryngol* 2003;260:273–6.

- 33 Park KH, Choi SM, Kwon SU, *et al.* Diagnosis of laryngopharyngeal reflux among globus patients. *Otolaryngol Head Neck Surg* 2006;134:81–5.
- 34 Reimer C, Bytzer P. Management of laryngopharyngeal reflux with proton pump inhibitors. *Ther Clin Risk Manag* 2008;4:225–33.
- 35 Wareing M, Elias A, Mitchell D. Management of globus sensation by the speech therapist. *Logoped Phoniatr Vocol* 1997;22:39–42.
- 36 Khalil HS, Bridger MW, Hilton-Pierce M, *et al.* The use of speech therapy in the treatment of globus pharyngeus patients. A randomised controlled trial. *Rev Laryngol Otol Rhinol* 2003;124:187–90.
- 37 Burns P, O'Neill JP. The diagnosis and management of globus: a perspective from Ireland. *Curr Opin Otolaryngol Head Neck Surg* 2008;16:503–6.
- 38 Speckens AE, van Hemert AM, Spinhoven P, *et al.* Cognitive behavioural therapy for medically unexplained physical symptoms: a randomised controlled trial. *BMJ* 1995;311:1328–32.
- 39 Kroenke K. Efficacy of treatment for somatoform disorders: a review of randomized controlled trials. *Psychosom Med* 2007;69:881–8.
- 40 Kiebles JL, Kwiatek MA, Pandolfino JE, *et al.* Do patients with globus sensation respond to hypnotically assisted relaxation therapy? A case series report. *Dis Esophagus* 2010;23:545–53.
- 41 Cybulska EM. Globus hystericus--a somatic symptom of depression? the role of electroconvulsive therapy and antidepressants. *Psychosom Med* 1997;59: 67–9.
- 42 Brown SR, Schwartz JM, Summergrad P, *et al.* Globus hystericus syndrome responsive to antidepressants. *Am J Psychiatry* 1986;143:917–8.
- 43 Bajbouj M, Becker V, Eckel F, *et al.* Argon plasma coagulation of cervical heterotopic gastric mucosa as an alternative treatment for globus sensations. *Gastroenterology* 2009;137:440–4.
- 44 Neumann WL, Luján GM, Genta RM. Gastric heterotopia in the proximal oesophagus ("inlet patch"): Association with adenocarcinomas arising in Barrett mucosa. *Dig Liver Dis* 2012;44:292–6.
- 45 Klare P, Meining A, von Delius S, *et al.* Argon plasma coagulation of gastric inlet patches for the treatment of globus sensation: it is an effective therapy in the long term. *Digestion* 2013;88:165–71.
- 46 Meining A, Bajbouj M, Preeg M, *et al.* Argon plasma ablation of gastric inlet patches in the cervical esophagus may alleviate globus sensation: a pilot trial. *Endoscopy* 2006;38:566–70.