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GLOBUS PHARYNGEUS IN PATIENTS WITH CHRONIC ALLERGIC PHARYNGITIS AND PSYCHOSOMATIC DISORDERS

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Abstract

This article gives characteristics to the problem of globus pharyngeus. It draws attention to the role of allergies and psychosomatic disorders in the pathogenesis of globus pharyngeus. It was offered a diagnostic algorithm, which includes not only the clinical examination and history, but also a psychosomatic condition questionnaire. It allows using an individual approach to the treatment of patients with globus pharyngeus depending on etiopathogenesis, which will improve their quality of life.

Keywords: *globus pharyngeus, chronic allergic pharyngitis, psychosomatics, diagnostic algorithm.*

Introduction

In modern otorhinolaryngology, the biopsychosocial model often plays an important role in the development of certain symptoms. As physicians, we tend to pay more attention to the somatic aspects of the disease in its diagnosis and treatment, ignoring the importance of psychological and social factors. When our treatment measures fail to produce the desired results, we often feel the same frustration as our patients.

If the otorhinolaryngologist excludes an organic cause, then the complaints are mainly caused of psychogenic origin. General practitioners, otorhinolaryngologists, gastroenterologists face difficulties in explaining to patients the origin of their symptoms, which are not objectively supported [1]. In 1818, the German doctor R. Heinroth offered the term "psychosomatics" and gave a new direction to modern medicine, which studies the role of psychological factors in the occurrence and course of somatic diseases [2,3,4]. Sometimes illness occurs in the human mind, causing negative thoughts, anger, and depression [5]. Also, often throat symptoms do not find objective confirmation from ENT doctors, as well as related specialists. Some conditions arising at the junction of otorhinolaryngology and psychiatry can be classified as psychosomatic, not arising as a result of ENT diseases of the pharynx.

For example, a lump in the throat (globus pharyngeus), or the commonly used term globus hystericus, is described as a lump-like sensation (foreign body), constriction, pressure or suffocation. The best description is a constant feeling of something stuck, a lump, or tightness in the throat [6,7,8]. Studies show that more than 45% of the population has a once-in-a-lifetime experience of the globus pharyngeus [9]. Such complaints account for up to 4% of outpatient visits to otorhinolaryngologists [10]. Globus pharyngeus is currently a common symptom, with an unclear pathophysiology and no consensus of optimal diagnosis and treatment [11,12]. Existing data shows no gender differences in the prevalence of the globus in patients over 50 years of age, however, at a younger age, it is more common in women [13].

Depression and anxiety disorders are often considered as comorbidities [14, 15]. Such patients suffer from a sensation of a lump or foreign body in the throat, sometimes in combination with increased mucus production and feeling of necessity to clear the throat; dysphagia, phagophobia, etc. Most patients have no causal organopathological changes. The reason for conducting research in patients with globus pharyngeus in the study by Harar R et al. was the identification of a malignant tumor of the pharynx and the upper part of the esophagus. [16].

The psychogenic globus sensation is a classic example of conversion syndrome. Dysphagia is most common during emotional stress and the psychological comorbidity of anxiety and depression [17]. Phagophobia is characterized by fear of swallowing, and this exacerbates problems with swallowing. Patients suffering from glossodynia or burning mouth syndrome are referred to "difficult" patients. They complain, suffer from severe pain, require examination, require treatment, and often fail to understand the psychosomatic disorder. There is also an important point to consider in the divergence between the patient's subjective sensations and lesions in the oral mucosa that cannot be measured objectively.

In many cases, patients cannot be “cured” but only “supported”.
For the treatment of such patients, various methods are offered: antidepressants, training programs focused on behavioral therapy with changes in diet and swallowing exercises [18,19], speech therapy [20]. There is growing evidence of the successful use of hypnotherapy in the treatment of these patients [21,22, 23,24].

At first sight, allergic and psychosomatic reactions have nothing in common. The first represents well-defined immunological processes, the other describes something that is difficult to objectively estimate.
Since the middle of the last century, scientists have become interested of a possible connection between the psychological state and the development of allergies. A number of observations

suggest that mast cells, like other immune cells, have a connection with nerve fibers [25,26], and their activation after stress depends on the nervous system and neurotransmitters [27, 28]. Since the discovery of histamine by the British scientist DaLe Henry HaLLett in 1910, completely different reactions and effects have been assigned to it, although the role of this biogenic amine in human physiology and pathophysiology remains unclear. Research results support the role of histamine as a stress-dependent mediator [29]. There are experimental studies proving that the concentration of histamine in plasma increases under pressure [29]. Several studies have shown a connection between allergies and the presence of panic disorders, depression and anxiety [30, 31]. Therapeutic researches and psychosomatically oriented treatment concepts are available mainly for asthma and neurodermatitis [32,33]. Psychoimmunological studies have shown the effectiveness of hypnotic suggestion [34].

A lump in the throat is a common cause of patients visits to ENT doctor and is often difficult to be estimated with conventional diagnostic methods. The aim of this study is to to develop an algorithm for the diagnosis and management of such patients, and to compare the differences between patients with chronic allergic pharyngitis and patients with globus hystericus.

Methods

The study included 73 patients with complaints of a lump in the throat. We identified 2 groups of patients:

1) 41 patients with chronic pharyngitis with an allergic nature;

2) 32 patients with complaints of "Globus pharyngeus" with psychosomatic disorders.

In the first group of patients there were complaints of: perspiration, burning sensation, sore throat, coughing, sneezing, nasal congestion and discharge, lacrimation. Some patients had seasonal complaints. In some patients, complaints were perennial, but with the exacerbation in the spring-summer period, as well as the presence of allergic diseases in the family.

The second group of patients complaints were: a feeling of a "lump" in the throat, perspiration, choking (characteristic of chronic pharyngitis), as well as complaints of lack of appetite, irritability, anxiety, nervousness and panic, sleep problems inherent in patients with anxiety disorders and depression.

We carefully collected a medical history of all patients. To do this, we used a questionnaire, which includes: life history and medical history, family and allergic history, complaints of chronic pharyngitis (Table 1), test which shows the influence of the patient's somatic status in the development of anxiety and depression, based on the General Anxiety Disorder-7scale (Figure 1), Patient Health Questionnaire-9 (Figure 2) and hospital Anxiety and Depression Scale (HADS). All patients had a clinical examination - pharyngoscopy, instrumental researches: Complete Blood Count test (CBC), the immunoglobulin E (IgE) blood test, cytological examination of pharyngeal and nasal mucus.

Results

In the first group, local signs of inflammation were present at pharyngoscopy. In the CBC test there were leukocytosis, an increased number of eosinophils. Cytological examination of nasal and pharyngeal mucus showed an increased number of leukocytes, and eosinophils predominate among leukocytes (more than 5%), an increased amount of total IgE.

In the second group, an objective examination showed no local symptoms of inflammation. There were no signs of an inflammatory process in the results of clinical and instrumental researches. The results of test of influence of somatic status on the development of anxiety disorder and depression, subclinical or clinically significant depression was revealed.

Patients of the first group received selective H1-antihistamines antihistamine therapy, such as

desloratadine, and were also referred for additional examination by an allergist, which will be reported in the following publications. Patients of the second group underwent further examination and treatment by a psychotherapist, in whose prescriptions sedatives were used (e.g. benzodiazepines, such as gidazepam).

Discussion

Thus, we have identified the main complaints that occur in all patients with "Globus hystericus". However, other complaints may vary. Therefore, it is very important during the first examination of such patients, already at the stage of medical history, to use a diagnostic algorithm for further competent patient management and resolving the issue of the need to consult a related specialist.

We offer a diagnostic algorithm for chronic pharyngitis:
1) clinical examination;
2) a history taking:
- anamnesis of life (bad habits, working conditions, contact with harmful substances);
- medical history;
- genetic history;
- allergic history due to the time of occurrence of allergy manifestations (persistent or intermittent forms), comorbidity (Allergic rhinitis (AR), bronchial asthma (BA), allergic esophagitis, etc.);
- the presence of chronic diseases of the gastrointestinal tract, especially reflux esophagitis;
- the presence of psychogenic diseases (we use a questionnaire that identifies the influence of the somatic status of the patient in the development of anxiety and depression, based on Generalized Anxiety Disorder 7 (GAD-7) scale, The PHQ-9 test (Patient Health Questionnaire-9) and the Hospital Anxiety and Depression Scale (HADS);
3) cytological examination of nasal and pharyngeal mucosal secretions;
4) Complete Blood Count test
5) concentration of general and specific IgE of pharyngeal mucus on the cellular composition;
6) allergist consultation - identification of causally significant allergens (food and / or respiratory), the relationship with oral allergy, etc.

Globus pharyngeus is a multidisciplinary problem that requires a comprehensive study using modern diagnostic facilities. The use of a diagnostic algorithm at an early stage of diagnosis makes it possible to establish the allergic nature of the disease, as well as to identify patients without an organic cause, but with a psychogenic origin of complaints. This gives us an opportunity to use the correct tactics of managing patients with globus pharyngeus: further additional
examination by an allergist and the use of etiopathogenetic treatment in patients with chronic allergic pharyngitis; initial contact with a patient with a psychosomatic disorder and the first medical history are important steps towards psychosomatically oriented therapy.

References

1. Olde Hartman TC, Hassink-Franke LJ, Lucassen PL, van Spaendonck KP, van Weel C. "Explanation and relations. How do general practitioners deal with patients with persistent medically unexplained symptoms: a focus group study". BMC FamPract. 2009;10:68. doi: 10.1186/1471-2296-10-68.
2. H Steinberg "The birth of the word 'psychosomatic' in medical literature by Johann Christian August Heinroth" FortschrNeurolPsychiatr. 2007 Jul;75(7):413-7. doi: 10.1055/s-2006-955010. Epub 2007 Mar 8.
3. Holger Steinberg "Johann Christian August Heinroth: psychosomatic medicine eighty years before Freud". PsychiatrDanub. 2013 Mar;25(1):11-6.
4. Dan L. "Is psychosomatic really a bicentennial word? The proof of an older use" Med Pharm Rep. 2019 Apr; 92(2): 205–207. doi: 10.15386/cjmed-1245.
5. V. P. Sood and Ajay Jain "Psychological implications in ENT diseases" Indian J Otolaryngol Head Neck Surg. 2009 Jun; 61(2): 95–98.doi: 10.1007/s12070-009-0046-0
6. Clouse RE, Richter JE, Heading RC, Janssens J, Wilson JA. "Functional esophageal disorders". Gut. 1999;45Suppl 2:II31–II36. doi: 10.1136/gut.45.2008.ii31

7. Batch AJ. "Globus pharyngeus" (Part I) J Laryngol Otol. 1988;102:152–158. DOI: 10.1017/s0022215100104384
8. Wilson JA, Heading RC, Maran AG, Pryde A, Piris J, Allan PL. "Globus sensation is not due to gastro-oesophageal reflux". ClinOtolaryngol Allied Sci. 1987;12:271–275. DOI: 10.1111/j.1365-2273.1987.tb00201.x
9. Müge Özçelik Korkmaz "Reliability and Validity of the Turkish Version of the Glasgow-Edinburgh Throat Scale: Use for a Symptom Scale of Globus Sensation in Turkish Population". Turk Arch Otorhinolaryngol. 2020 Mar; 58(1): 41–47.Published online 2019 Aug 15. doi: 10.5152/tao.2020.4686
10. Corso MJ, Pursnani KG, Mohiuddin MA, Gideon RM, Castell JA, Katzka DA, Katz PO, Castell DO. "Globus sensation is associated with hypertensive upper esophageal sphincter but not with gastroesophageal reflux". Dig Dis Sci. 1998;43:1513–1517. doi: 10.1023/a:1018862814873
11. Jing Sun "Study on the function of pharynx & upper esophageal sphincter in globushystericus". World J Gastroenterol. 2002 Oct 15; 8(5): 952–955 doi: 10.3748/wjg.v8.i5.952
12. Burns P, O'Neill JP. "The diagnosis and management of globus: a perspective from Ireland". CurrOpinOtolaryngol Head Neck Surg 2008 Dec;16(6):503-6.doi: 10.1097/MOO.0b013e3283169258.
13. Philip R Harvey, Byron T Theron, and Nigel J Trudgill "Managing a patient with globuspharyngeus" Frontline Gastroenterol. 2018 Jul; 9(3): 208–212. doi: 10.1136/flgastro-2017-100844
14. Cybulska E.M. "Globus hystericus–a somatic symptom of depression? The role of electroconvulsive therapy and antidepressants". Psychosom Med 1997;59:67–9. 10.1097/00006842-199701000-00009
15. Reiss M, Reiss G. "Burning mouth syndrome - etiology, differential diagnostical aspects and therapy". TherUmsch. 2004;61:308–312.
16. Harar RP, Kumar S, Saeed MA, Gatland DJ. "Management of globuspharyngeus: reviewof 699 cases". J Laryngol Otol. 2004;118:522–527.
17. Bretan O, Henry MA, Kerr-Correa F. "Dysphagia and emotional distress". ArqGastroenterol. 1996;33:60–65.
18. Rosenbek JC. "Efficacy in dysphagia. Dysphagia". 1995;10:263–267. doi: 10.1007/BF00431420.
19. Logemann JA. "Behavioral management for oropharyngeal dysphagia". Folia PhoniatrLogop. 1999;51:199–212. doi: 10.1159/000021497.
20. Khalil HS, Bridger MW, Hilton-Pierce M, Vincent J. "The use of speech therapy in the treatment of globuspharyngeus patients. A randomised controlled trial". Rev LaryngolOtolRhinol (Bord) 2003;124:187–190.
21. Culbert TP, Kajander RL, Kohen DP, Reaney JB. "Hypnobehavioral approaches for school-age children with dysphagia and food aversion: a case series". J Dev BehavPediatr. 1996;17:335–341. doi: 10.1097/00004703-199610000-00008.
22. Moene FC, Spinhoven P, Hoogduin KAL, van Dyck R. "A randomized controlled clinical trial of a hypnosis-based treatment for patients with conversion disorder". Int J ClinExpHyp. 2003;51:29–50.doi: 10.1076/iceh.51.1.29.14067.
23. Van Ravesteijn H, Lucassen P, Bor H, van Weel C, Speckens A. "Mindfulness-based cognitive therapy for patients with medically unexplained symptoms: a randomized controlled trial". Psychother Psychosom. 2013;82(5):299–310. doi: 10.1159/000348588.
24. J. L. Kiebles and co-authors. "Do patients with globus sensation respond to hypnotically assisted relaxation therapy? A case series report" Diseases of the Esophagus, Volume 23, Issue 7, 1 September 2010, Pages 545–553, https://doi.org/10.1111/j.1442-2050.2010.01064.x)
25. Stead RH, Tomioka M, Quinonez G, Simon GT, Felten SY, Bienenstock J. "Intestinal mucosal mast cells in normal and nematode-infected rat intestine are in intimate contact with peptidergic nerves". Proc Natl AcadSci USA. 1987;84:2975–2979.
26. Janiszewski J, Bienenstock J, Blennerhassett MG. "Picomolar doses of substance P trigger electrical responses in mast cells without

degranulation". Am J Physiol. 1994;267:C138–145.
27. MacQueen G, Marshall J, Perdue M, Siegel S, Bienenstock J. "Pavlovian conditioning of rat mucosal mast cells to secrete rat mast cell protease II". Science Wash DC. 1989;243:83–85
28. Helene Eutamene "Acute stress modulates the histamine content of mast cells in the gastrointestinal tract through interleukin-1 and corticotropin-releasing factor release in rats" J Physiol. 2003 Dec 15; 553(Pt 3): 959–966. doi: 10.1113/jphysiol.2003.052274
29. H.-J. Reimann and co-author StressandHistamine "New Trends in Allergy" pp 50-56, 1981; doi: 10.1007/978-3-642-67807-3_7;
30. Kovács M, Stauder A, Szedmák S. "Severity of allergic complaints: the importance of depressed mood". J Psychosom Res. 2003;54:549–557.
31. Stauder A, Kovács M. "Anxiety symptoms in allergic patients: identification and risk factors". Psychosom Med. 2003;65:816–823.
32. Gieler U. "Psyche und Allergie". In: Heppt W, Renz H, Röcken M, editors. Allergologie. Berlin, Heidelberg, NewYork: Springer; 1998.
33. Richter R, Ahrens ST. "PsychosomatischeAspekte der Allergie". ManualeAllergologicum. Deisenhofen: Dustri-Verlag; 2004.
34. Black S. "Shift in dose-response curve of Prausnitz-Kustner reaction by direct suggestion under hypnosis". Br Med J. 1963b;1:990–992.

Table 1. Complaints typical for patients with "globus pharyngeus"

Indicators	I group of patients with a burdened history and manifestations of allergies	II group of patients with a violation of psychosomatic status
Sore throat	+	+
Burning in throat	+	+
Scratchiness in throat	+	+
Cough	+	
Sneezing	+	
Feeling of a “lump” in the throat	+	+
Excessive tearing (lacrimation)	+	
Nasal discharge	+	
Nasal congestion	+	
Breathlessness or a feeling of suffocation.	+	+
Pyrosis (Heartburn)		
Unpleasant aftertaste in the mouth		
Lack of appetite		+
Choking		+
Irritability and nervousness		+
Sleep disorders		+
Feeling of anxiety, and panic		+

Figure 1. Generalized Anxiety Disorder 7 (GAD-7) scale

GAD-7

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

Total Score ___ = Add Columns ___ + ___ + ___

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
☐	☐	☐	☐

Figure 2. The Patient Health Questionnaire-9

Subject Name _____ **Date**_____

Since your hospitalization, how often have you been bothered by any of the following problems? Circle your response.

	Not at all	Some	Often	Nearly all of the time
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3
Trouble falling or staying asleep, or sleeping to much	0	1	2	3
Feeling tired or having little energy	0	1	2	3
Poor appetite or overeating	0	1	2	3
Feeling bad about yourself – or that you are a failure or have let your family down	0	1	2	3
Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

Total: _____