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Main Article

What is the severity of globus sensation in individuals who have never sought health care for it?

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Abstract

Objectives: To assess the pattern and severity of globus-type symptoms, as measured by the Glasgow Edinburgh throat scale, in individuals who had never sought health care for a feeling of something in the throat, in order to generate the first useful normative dataset for the Glasgow Edinburgh throat scale.

Methods: One hundred and seventy-four participants recruited from non-ENT clinics completed the Glasgow Edinburgh throat scale. They were distributed among three age groups (21–45, 46–65 and >65 years).

Results: The commonest throat symptoms reported were 'coughing to clear the throat', followed by 'catarrh down the throat' and 'discomfort/irritation in the throat'.

Conclusions: The results of the study – a normative dataset for the Glasgow Edinburgh throat scale – may form the basis for: (a) the use of the Glasgow Edinburgh throat scale in primary care to identify patients for whom referral to secondary care may be appropriate; (b) monitoring the natural history of globus sensation; and (c) assessing response to intervention, in terms of resolution to baseline population levels of symptom severity.

Key words: Globus Hystericus; Deglutition Disorders; Pharynx; Symptoms; Therapy

Introduction

Globus can be defined as a feeling of something stuck in the throat or a sensation of a lump or tightness in the throat. The term comes from the Latin 'globus', meaning a ball. It is a well defined clinical symptom that is persistent, difficult to treat and has a tendency to recur.[1] Patients suffering from globus sensation have been found to have no higher score for hysteria than healthy subjects.[2] Up to 45 per cent of the general population have had a mild, intermittent globus sensation at some time in their lives,[3] while 6 per cent of middle-aged women describe a persistent feeling of something caught in the throat in the previous three months.[4]

While globus is undoubtedly common in the community, there is no tool which can help doctors assess what constitutes 'pathological' levels of globus intensity. The limited data which are available, however, suggest that the most important predictor of general practice and hospital attendance is indeed the severity and intensity of the globus sensation.[4] As globus is a diagnosis of exclusion and is a purely subjective sensation, a good tool to assess the symptom's severity would be useful in order to: monitor the symptom's natural history; monitor response to intervention; and perhaps even to help primary care practitioners to identify those for whom referral to secondary care may be most appropriate.

A symptom assessment scale has been developed by Deary *et al.*[5] to assess and monitor the severity of some common throat symptoms in globus patients, and the Glasgow Edinburgh throat scale follows this scale. In the initial report, 105 globus patients completed the questionnaire, which consisted of 10 items concerning throat symptoms. The results showed that three common symptoms were reported more frequently and at a much higher intensity than others, that is: a 'feeling of something stuck in the throat', 'discomfort/irritation in the throat', and 'wants to swallow all the time'. Patients' reactions to their throat symptoms, in terms of how much time they spent thinking about their throat and how annoying they found their throat sensations, were also included in the Glasgow Edinburgh throat scale.

Other symptom-based ENT questionnaires have recently been developed, such as the 'SNOT 20' by Piccirillo *et al.*[6] and the reflux symptom index by Belafsky *et al.*[7] For both of these tools, there are useful, published normative data. However, there are no such baseline data available for the Glasgow Edinburgh throat scale. This is a particular limitation in applying the Glasgow Edinburgh throat scale in

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clinical studies, given the high lifetime population experience of throat symptoms of this type.

Aim

The aim of our study was to assess the pattern and severity of globus-type symptoms, as measured by the Glasgow Edinburgh throat scale, in individuals who had never sought health care for globus.

Materials and methods

Subjects

We recruited a convenient sample of participants aged over 21 years from the adjacent ophthalmology out-patient department. Participants were stratified into three age groups (21–45, 45–65 and >65 years), with balanced representation of both sexes.

Exclusions

We excluded the following individuals: those who had at any time consulted a doctor principally on the basis of a feeling of something in the throat; those who declined participation; emergency referrals; and those with insufficient command of written English to complete the questionnaire.

Design

Participants were offered the study pack on arrival in the waiting area. This pack included: an information sheet explaining the nature and purpose of the study; an invitation to participate in the study; a consent form to be signed by those willing to participate; the Glasgow Edinburgh throat scale plus a front sheet to record age and sex; and a stamped envelope.

Those approached were asked, if they were willing, to sign and post back the completed questionnaire on their return home. The study had the approval of the local research ethics committee.

Statistical analysis

The data were analysed using the Statistical Package for the Social Sciences software (SPSS Inc, Chicago IL, USA), with a two-tailed hypothesis and 5 per cent level of probability. The chi-square test was used to examine the association between age group and sex. Spearman rank correlation was used to measure the correlation between age and the different items of the Glasgow Edinburgh throat scale questionnaire.

Results

There were 239 respondents. The 174 participants who met the criteria were included in the study. The following were excluded: 53 people who had previously seen a doctor for a similar throat complaint, five who were aged under 21 years, and seven who had failed to sign the consent form. There were 93 women (53.4 per cent), mean age 54 years and 81 men (46.6 per cent), mean age 58 years.

Figure 1 shows respondents' indications of the frequency and intensity of the 15 complaints covered by the Glasgow Edinburgh throat scale. The symptoms reported most frequently and at greatest intensity were 'coughing to clear throat' (mean = 1.82, standard deviation (SD) = 1.66), 'catarrh down throat' (mean = 1.52, SD = 1.82), 'swallowing' (mean = 0.90, SD = 1.51) and 'discomfort/irritation in the throat' (mean = 0.78, SD = 1.44).

There were 33 women aged 21–45 years, 34 aged 45–65 years and 26 aged >65 years, while there were 18, 35 and 28 men in the same age groups, respectively. The chi-square test showed no significant association between age groups and sex ($\chi^2 = 3.690$, statistical calculation of chi-square test (d.f.) = 2, $p = 0.158$ (i.e. >0.05)). More than 77 per cent of participants reported coughing to clear the throat, the commonest symptom reported. Over 55 per cent of participants reported catarrh down the throat. Swallowing was reported by about 38 per cent of participants, and discomfort/irritation in the throat by 30 per cent (Table I).

The Spearman rank correlation was used to explore the association between intensity of each Glasgow Edinburgh throat scale item and age (Table II). Most items showed an inverse relationship with age (i.e. negative rho), meaning that older subjects had less severe symptoms. These associations were statistically significant only for swallowing ($r = -0.331$, $p < 0.001$). The Mann–Whitney U test showed no significant difference in symptom reporting between the 81 men and 93 women. Table III shows the correlations amongst the 15 throat-related symptoms. The correlations were uniformly positive, indicating that the occurrence of any of the throat symptoms made any of the other symptoms more likely.

Discussion

The present study assessed the use of the Glasgow Edinburgh throat scale in individuals who had never sought health care for their globus-type symptoms.

The drawbacks of the Glasgow Edinburgh throat scale are its physician-derived nature, its application hitherto in only small subject numbers, and the lack of good normative data. However, on the other hand, the Glasgow Edinburgh throat scale is the only available globus tool, it is very quick to complete (taking less than five minutes), and it does appear (from the small samples so far reported) to adequately discriminate globus sufferers from the general population.[4]

Clinically presenting globus sensation has always been reported to be more common in female sufferers and usually in the middle-aged population. The present study shows there was no significant difference between male and female reporting of each symptom in the Glasgow Edinburgh throat scale questionnaire, similar to the prevalence of the lifetime experience of globus in Thomson and Heaton's community-derived population.[3] These authors identified that 45 per cent of the general population of both sexes had experienced globus sensation at some time in their lives.[3]

In our sample, the most frequent symptom reported was coughing to clear the throat, in 78 per

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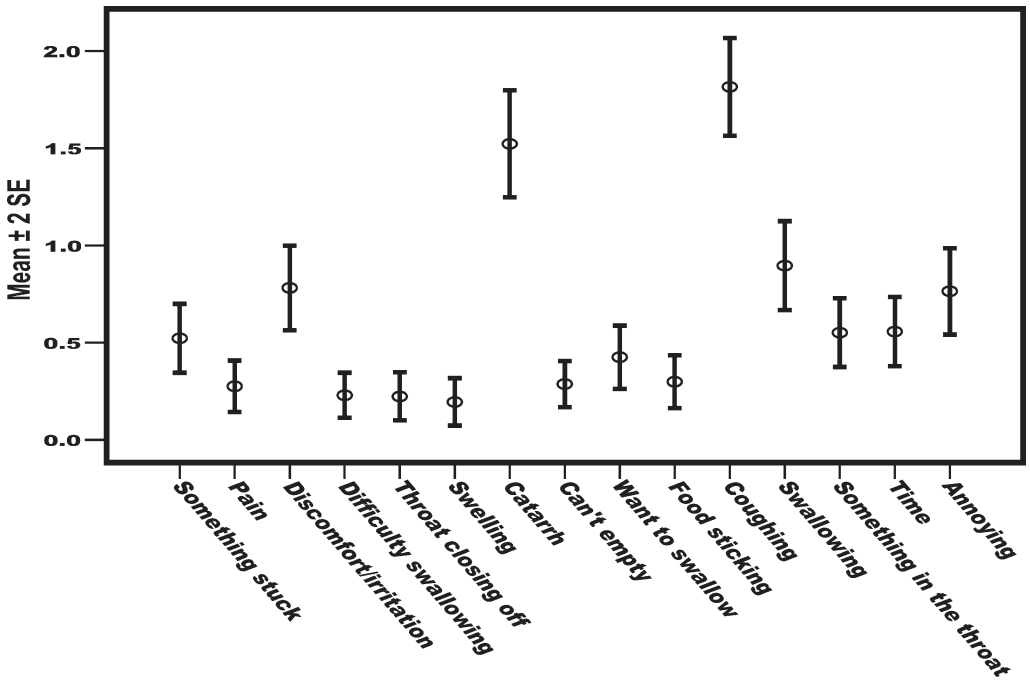

FIG. 1
Mean and standard error (SE) scores for the 15 Glasgow Edinburgh throat scale items.

cent of respondents. Throat clearing was also the commonest symptom in a study of the symptoms of voice clinic attenders.[8] The second commonest symptom was catarrh down the throat, in 55 per cent.

Further analysis of the Glasgow Edinburgh throat scale results showed that there was no association between age and the reported intensity of Glasgow Edinburgh throat scale variables, except for swallowing difficulty. This may reflect the age-related increase in minor degrees of dysphagia. We also found, using Pearson's correlation, that some symptoms intercorrelated highly with others, and further work is required on a larger sample fully to elucidate the factors present in the questionnaire. For example; catarrh was found to correlate highly with coughing, annoyance, and the desire to swallow all the time. Pain correlated highly with swelling in the throat and discomfort/irritation in the throat.

In the study by Deary *et al.*,[5] the Glasgow Edinburgh throat scale was used to assess the severity of globus sensation in 105 patients with a diagnosis of globus pharyngeas. Their results identified three rotated factors related to dysphagia, globus sensation and pain/swelling in the throat. Their results also showed that some symptoms were reported more frequently than others, i.e. 'something stuck in the throat', 'discomfort/irritation in the throat', and 'want to swallow all the time'.

TABLE I
SUBJECTS SCORING ≥1 FOR EACH ITEM

GETS item	*n*	%
Feeling of something stuck in the throat	37	21.3
Pain in the throat	21	12.1
Discomfort/irritation in the throat	52	29.9
Difficulty in swallowing food	18	10.3
Throat closing off	15	8.6
Swelling in the throat	13	7.5
Catarrh down throat	96	55.2
Can't empty throat when swallowing	26	14.9
Want to swallow all the time	33	19.0
Food sticking when swallowing	22	12.6
Coughing to clear the throat	135	77.6
Swallowing	66	37.9
Something in the throat	46	26.4
How much time do you spend thinking about your throat?	45	25.9
At present, how annoying do you find your throat sensation?	51	29.3

GETS = Glasgow Edinburgh throat scale

TABLE II
ASSOCIATION BETWEEN AGE AND GETS ITEM INTENSITY

GETS item	*r**	*p*
Feeling of something stuck in the throat	−0.173	0.022
Pain in the throat	−0.126	0.097
Discomfort/irritation in the throat	−0.0173	0.666
Difficulty in swallowing food	−0.004	0.955
Throat closing off	−0.083	0.274
Swelling in the throat	−0.170	0.025
Catarrh down throat	0.153	0.043
Can't empty throat when swallowing	−0.080	0.292
Want to swallow all the time	−0.054	0.483
Food sticking when swallowing	0.051	0.500
Coughing to clear the throat	0.022	0.773
Swallowing	−0.331	0.000†
Something in the throat	−0.109	0.153
How much time do you spend thinking about your throat?	0.002	0.981
At present, how annoying do you find your throat sensation?	0.022	0.769

*Spearman's rho correlation coefficient. †Correlation is significant at the 0.01 level (2-tailed). GETS = Glasgow Edinburgh throat scale

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TABLE III

PEARSON'S CORRELATIONS AMONGST ALL GETS ITEMS

GETS item	Something stuck	Pain	Discomfort/ irritation	Difficulty swallowing	Throat closing off	Swelling	Catarrh	Can't empty	Want to swallow	Food sticking	Coughing	Swallowing	Something in the throat	Time
Pain	0.312													
Discomfort/ irritation	0.446	0.497												
Difficulty swallowing	0.524	0.261	0.362											
Throat closing off	0.526	0.329	0.423	0.485										
Swelling	0.389	0.676	0.508	0.191	0.500									
Catarrh	0.294	0.274	0.557	0.309	0.343	0.247								
Can't empty	0.365	0.214	0.355	0.499	0.353	0.223	0.472							
Want to swallow	0.345	0.214	0.531	0.380	0.359	0.298	0.583	0.651						
Food sticking	0.479	0.220	0.428	0.711	0.456	0.224	0.351	0.480	0.425					
Coughing	0.250	0.120	0.449	0.189	0.198	0.127	0.618	0.367	0.508	0.229				
Swallowing	0.197	0.110	0.386	0.247	0.212	0.246	0.344	0.466	0.660	0.284	0.411			
Something in the throat	0.596	0.151	0.521	0.324	0.412	0.323	0.324	0.326	0.475	0.334	0.511	0.456		
Time	0.486	0.285	0.585	0.354	0.409	0.400	0.474	0.311	0.545	0.298	0.569	0.458	0.629	
Annoying	0.372	0.319	0.601	0.255	0.307	0.349	0.611	0.317	0.537	0.213	0.587	0.402	0.544	0.765

GETS = Glasgow Edinburgh throat scale

- **Globus can be defined as a feeling of something stuck or a sensation of a lump or tightness in the throat. It is a well defined clinical symptom that is persistent, difficult to treat and has a tendency to recur**
- **This study assesses the pattern and severity of globus-type symptoms as measured by the Glasgow Edinburgh throat scale, in individuals who had never sought health care for a feeling of something in the throat**
- **The commonest throat symptom reported was 'coughing to clear the throat', followed by 'catarrh down the throat', and 'discomfort/ irritation in the throat'**

The present study involved a bigger sample, and participants were not 'globus diagnosed'. In fact, participants had not sought any medical care for their globus-type symptoms. The results of our study represent a useful, normative dataset for the Glasgow Edinburgh throat scale, which may form the basis for: (a) using the Glasgow Edinburgh throat scale in primary care to identify those for whom referral to secondary care may be needed; (b) monitoring the natural history of globus sensation; and (c) monitoring response to intervention, in terms of resolution to baseline population levels of symptom severity.

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