

## Trends in laryngopharyngeal reflux: a British ENT survey

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**Abstract** There is a lot of scepticism surrounding laryngopharyngeal reflux (LPR). Symptoms such as globus pharyngeus, constant throat clearing, chronic cough, idiopathic hoarseness, catarrh and choking episodes may be reflux-related. The aim of this survey was to highlight current treatment trends in LPR. Questionnaires were emailed to 260 members of the British Academy of Otolaryngology-Head and Neck surgery (BAO-HNS). Survey recipients were asked about type, duration and dose of antireflux treatment and length of follow-up appointments, if any. Finally, they were asked about awareness of any reflux symptom and reflux sign questionnaires. Survey response rate was 60%. The vast majority of the otolaryngologists surveyed believe in laryngopharyngeal reflux (90%) and more than 50% prescribe proton pump inhibitors

(PPIs). The preferred duration of treatment is 2 months (37%). Only a minority will prescribe PPIs for 6 months or more. Most otolaryngologists will give the standard GORD dose (70%) (once daily) and only a few (20%) will prescribe more aggressive and prolonged doses. The commonest symptoms for which proton pump inhibitors are prescribed are globus (73%), followed by choking episodes (66%) and chronic cough (62%). If LPR is suspected, most of the otolaryngologists will follow-up the patients (61%) and approximately one third (31%) will discharge them back to the general practitioners. Only eight-percent 8% will refer to gastroenterologists. The three commonest laryngoscopic signs that makes them suspect LPR are erythema of the arytenoids (86%) or the vocal cords (57%) and granulomas (42%). The majority of the otolaryngologists (94%) do not use popular questionnaires such as the RFS or RSI. Despite the controversy surrounding laryngopharyngeal reflux, our results suggest that the majority of the otolaryngologists surveyed believe in LPR and attempt to treat it. Interesting findings are: the duration of treatment, the doses used, the length of follow-ups or the lack of, and the fact that the majority does not request any specific diagnostic tests. “symptoms and signs” questionnaires are rarely used.

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### Introduction

Laryngologists all over the world, with pioneers the North Carolina group [1], have been trying to define

laryngopharyngeal reflux (LPR) and to diagnose it with a non invasive and reproducible test. LPR is not a new entity and for years gastroenterologists would treat their “atypical” gastroesophageal patients with aggressive and prolonged doses of proton pump inhibitors (PPIs). Throughout the UK, it is common knowledge, although anecdotal, that otolaryngologists have different attitudes towards managing patients with suspected reflux-related symptoms. There are those who choose to ignore this entity completely and others who are willing to “embrace” it as one of the many-in ENT-mystery diseases. Nevertheless, “empiric” treatment means treatment “based on experience” and, therefore, by definition, lacks evidence. The systemic review of the literature confirms that there is lack of adequate level I evidence for empiric treatment of LPR with PPIs [2].

The aim of this questionnaire survey was to highlight the current UK trends in management of LPR.

## Materials and methods

Questionnaires were emailed to 260 members of the British Academy of Otolaryngology-Head and Neck Surgery (BAO-HNS) (Appendix). Survey recipients were asked whether they believe in LPR and, if yes, what are the symptoms and signs, which will make them suspect this. They were also asked about duration and dose of antireflux treatment and length of follow-up appointments, if any. Finally, they were asked about awareness of any reflux symptom and reflux sign questionnaires.

## Results

Initial survey response rate was 42%. The non-respondents were emailed for a second time and the final response rate went up to 60%. The vast majority of the otolaryngologists surveyed believe in laryngopharyngeal reflux (90%) and more than 50% prescribe proton pump inhibitors (PPIs). Most otolaryngologists will give the standard GORD dose (64%) (once daily) and 36% will prescribe a more aggressive twice-daily dose (Fig. 1). The preferred duration of treatment is 1 month (31%), followed by 2 months 37(%) and 3 months (26%). Only a minority will prescribe PPIs for 6 months (3%) or more (3%) (Fig. 2). The commonest symptoms for which proton pump inhibitors are prescribed are globus (73%), followed by choking episodes (66%), chronic cough (62%) and frequent throat clearing (43%) (Fig. 3). If LPR is suspected, most of

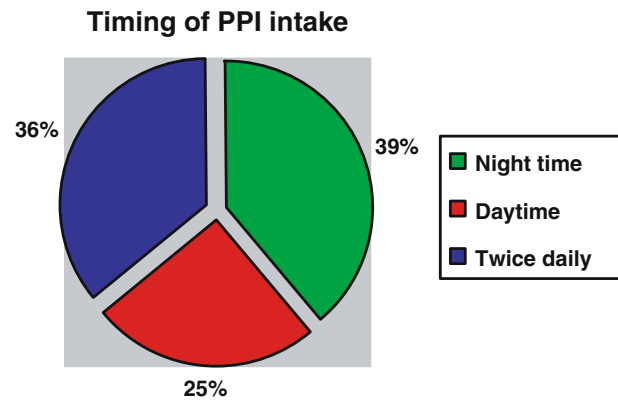


Fig. 1 Timing of PPI intake

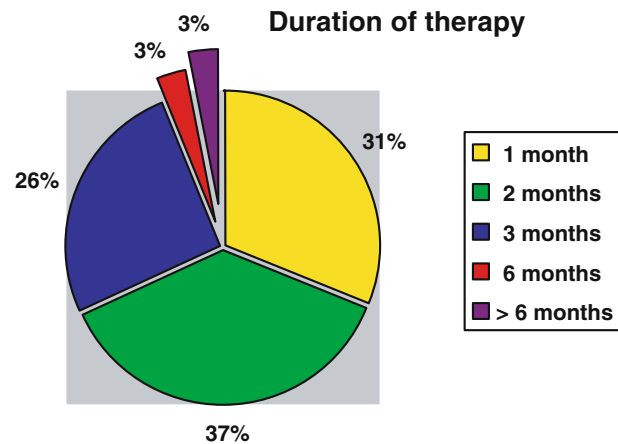


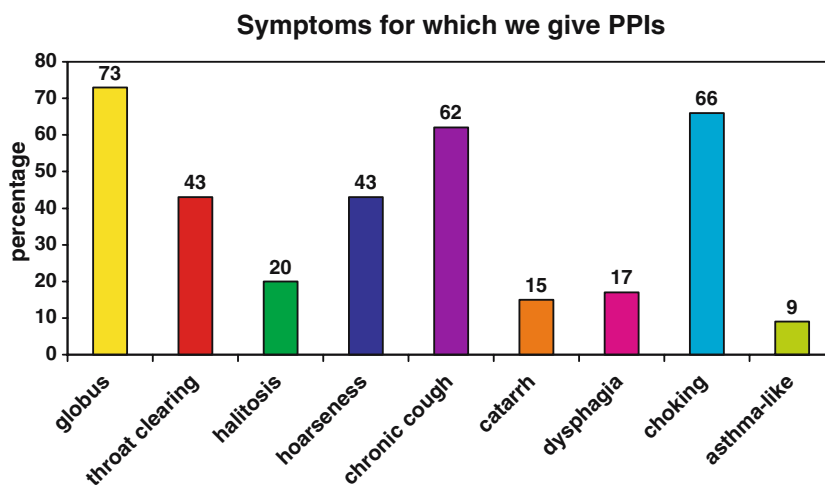
Fig. 2 Duration of therapy

the otolaryngologists will follow-up the patients (61%) and approximately one third (31%) will discharge them back to the general practitioners. Only eight percent (8%) will refer to gastroenterologists and/or order further investigations. The three commonest laryngoscopic signs that makes them suspect LPR are erythema of the arytenoids (86%) or the vocal cords (57%) and granulomas (42%) (Fig. 4). The majority of the otolaryngologists surveyed (94%) do not use popular reflux questionnaires such as Reflux Symptom Index and Reflux Finding Score.

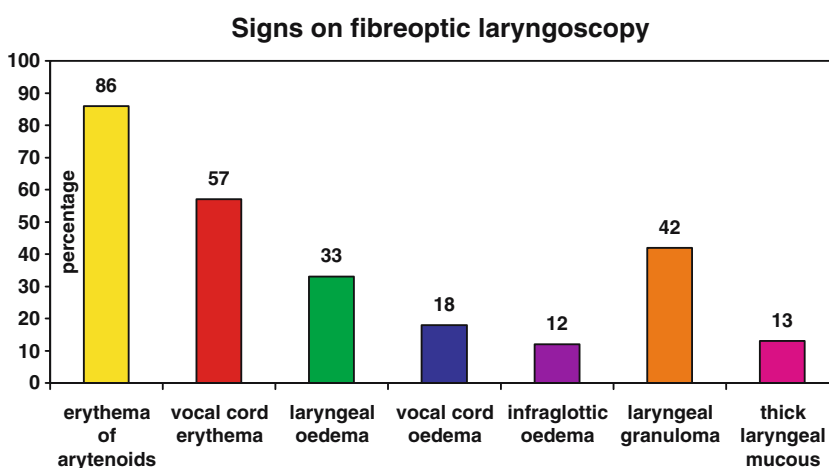
## Discussion

Our results highlight what we were, more or less suspecting all along. There is awareness in the ENT community, but there is also controversy. Most otolaryngologists hesitate when it comes to prescribing aggressive and prolonged doses of PPIs. This is not a surprise, as PPIs are not licensed in the UK for treatment of LPR and the evidence for empiric treatment is

**Fig. 3** Symptoms for which we give PPIs



**Fig. 4** Signs on fiberoptic laryngoscopy



far from robust [2]. There also cost implications to think, as antireflux treatment is associated with the larger prescribing cost in the NHS [3]. On the other hand, the larynx and pharynx are more susceptible to acid injury as they lack the defense mechanisms of the oesophagus. Therefore, it makes sense that a standard for the UK-GORD dose (once daily PPI, for example Omeprazole 20 mg, for 4–8 weeks) for treatment of LPR may not be adequate and that is perhaps the most common “mistake” made by otolaryngologists when they discharge LPR patients back to primary care [4]. Other problems arise from the lack of adequate diagnostic tests. Most otolaryngologists (with the exception of those with a voice interest) use fiberoptic laryngoscopy to assess these patients. Rigid laryngoscopy and/or stroboscopy gives a superior laryngeal image and often video-documentation can act as a comparison/outcome measure to assess the efficacy of pre- and post-PPI treatment, thus the need for at least one follow-up appointment. Prolonged dual probe pH-metry is far from ideal and despite its popular use (not in the UK)

has false negative results. Our results confirm also the reluctance to refer to other specialists. Another problem is finding the right diagnostic algorithm for these patients. What constitutes the “diagnostic symptoms and signs” of LPR are often multifactorial symptoms and non-specific signs. Therefore, the controversy surrounding the diagnosis and treatment of LPR is not overrated. Symptoms such as catarrh, “idiopathic” hoarseness, globus, chronic cough and choking episodes that are perhaps reflux-related are not well understood and may or may not respond to antireflux treatment. All the above symptoms may equally respond to other empiric treatment modalities. For example, catarrh may also respond to nasal steroid sprays, hoarseness and globus may respond to speech therapy and voice hygiene or lifestyle modification advice, etc. To make things worse, laryngoscopic “signs” of reflux are often non-specific and a picture of a red and “angry” larynx is not interpreted in the same way by different laryngologists. The lack of diagnostic tests with a good sensitivity and specificity creates even more controversy.

Recent research in pepsin may give answers to many questions regarding LPR. The combination of pepsin measurements [5] in the sputum, perhaps with wireless pH-metry and/or impedance techniques will get us closer in diagnosing LPR as accurately as it is feasibly possible for a disease which still remains to be accurately defined.

In paediatrics diagnosing and treating LPR is even more critical as many potential life threatening conditions (subglottic stenosis, laryngomalacia, recurrent croup) may be reflux-related [6, 7].

## Conclusions

Laryngopharyngeal reflux-at least in the UK, seems to be either overdiagnosed or underdiagnosed. The common trend is to try a standard anti-reflux treatment for 6–8 weeks and often discharge these patients without getting feedback from either patients or their general practitioners. This trend though goes against the rules of any empiric treatment; we need to see our patients to assess whether our treatment works or not, and blaming the lack of follow-up on cost effectiveness alone is not justifiable. Is it perhaps time to try dealing with these symptoms in a more methodical way? We could address LPR as a state of acid hypersecretion and treat more aggressively and for more than 4 weeks. Until we find the ideal non-invasive test for LPR and as diagnostic tests are not readily available to most UK otolaryngologists, referring patients who have failed to improve on PPIs for more than 2 months to gastroenterologists for dual probe pH monitoring should perhaps be part of our routine practice.

## Appendix

Do you “believe” in Laryngopharyngeal Reflux

- Yes
- No
- I am not familiar with this term

How often do you prescribe antireflux treatment (including Proton Pump inhibitors-PPIs) in outpatients?

- Never
- <10% of cases
- 10–49%
- >50% of cases

If you suspect Laryngopharyngeal Reflux, what is your next action?

- Refer back to the GP with advice
- Refer to a gastroenterologist and/or order investigations
- Start them on antireflux treatment and follow them up

What is the commonest symptom (apart from indigestion) you prescribe PPIs for? You can tick one, or more from the following:

- Feeling of something stuck in the throat (globus pharyngeus)
- Frequent throat clearing
- Halitosis, bitter taste in the mouth
- Hoarseness
- Chronic cough
- Catarrh
- Dysphagia
- Choking episodes, esp when lying down
- Wheezing and “asthma-like” symptoms

What is the sign or signs on Fibreoptic Laryngoscopy that makes you suspect LPR?

- Erythema of arytenoids
- Erythema of vocal cords
- Diffuse laryngeal oedema
- Vocal cord oedema
- Infraglottic oedema
- Laryngeal granulomas
- Thick laryngeal mucous

How long do you prescribe PPIs for?

- 1/12
- 2/12
- 3/12
- 6/12
- >6/12

Do you give PPIs once or twice daily?

- Once
- Twice

Do you advice your patients about life-style modifications, i.e. smoking, spicy food, late meals, etc.?

- Yes
- No

Do you give PPIs at night or daytime or both?

- Night
- Daytime
- Both

Are you familiar with the reflux finding score and Reflux Symptom Index?

- Yes
- No

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