Laryngopharyngeal reflux

Commentary by
JONATHAN LIVESEY
MA(Oxon), FRACS, FRCS(ORL), FRCS(Ed)

Can gastro-oesophageal reflux be the cause of a sore throat or other pharyngeal problem when there are no classic symptoms to suggest the presence of reflux?

Case scenario

Over the last couple of years, many of my patients who have a chronic sore throat or pharyngeal mucus end up being told they have reflux oesophagitis, although they have no heartburn, regurgitation or obvious reflux. Some of these patients go on to have endoscopy and there doesn't appear to be a good correlation between what is found at endoscopy and the diagnosis. Is there good evidence that reflux can cause a sore throat without any other symptoms being present to suggest it? Is this just a medical fashion?

Commentary

The increased awareness of gastro-oesophageal reflux as a cause of pharyngeal symptoms is not just a medical fashion. Our understanding of gastric reflux to the larynx and pharynx has increased, as have our abilities to investigate and manage it. In this setting, it would be better described as laryngopharyngeal reflux.

Everyone gets a degree of reflux daily, and in most people there are no symptoms. This suggests that the oesophageal mucosa is used to being exposed to gastric contents. Indeed, when some people finish a course of proton pump inhibitors they report having symptoms of reflux. This is probably because the mucosa has become used to an acid-free environment and then recognises the return of acid. The reflux contains gastric acid that will activate the gastric digestive enzymes, and there are bile salts and food particles, to name but some of the contents.

Dr Livesey is an Ear, Nose and Throat Surgeon and Voice Specialist in St Leonards and Mosman, NSW.

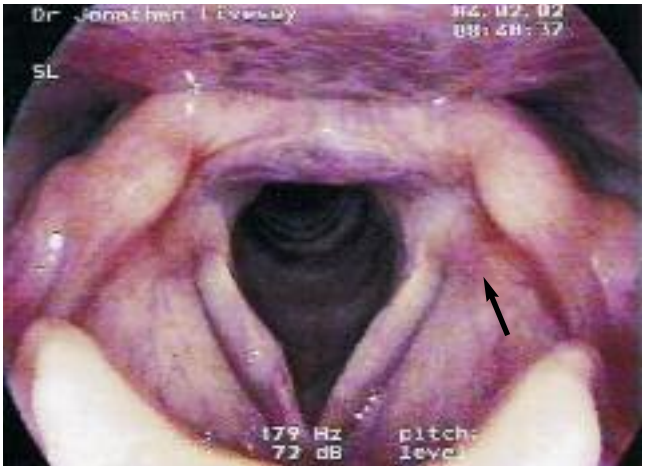

Figure. A larynx at rest. Erythema on the medial aspect of the arytenoids (arrow) suggests laryngopharyngeal reflux.

Antireflux lifestyle changes

- Leave three hours between eating and going to bed in order to allow your stomach to empty.
- Avoid throat clearing or coughing because it traumatises your vocal folds – instead swallow or have a sip of water if possible.
- Reduce or avoid the following:
  - red meat with high fat content
  - caffeine (coffee, tea, cola)
  - fatty foods
  - chillies and spices
  - tomatoes
  - alcohol.
- Stop or reduce smoking.
- Try elevating the head of your bed.

Symptoms

Only 46% of people with laryngopharyngeal reflux have the classic reflux symptoms of heartburn, regurgitation or acid reflux. The remainder have soft symptoms such as sore throat, postnasal drip at the level of the larynx, a 'frog in the throat', globus and chronic cough or throat clearing. Some may have vocal difficulties, with poor vocal reserve or pitch problems.

Reflux may exacerbate asthma. The cough following a chest infection or associated with bronchitis may be prolonged by the presence of laryngopharyngeal reflux. Coughing probably exacerbates reflux owing to diaphragmatic movement causing sudden changes in intra-abdominal pressure. Reflux may also contribute to eustachian tube dysfunction or rhinosinusitis.

Investigation

Flexible nasolaryngoscopy affords an excellent view of the larynx and hypopharynx. The presence of erythema on the medial, intraglottic portion of the arytenoids is pathognomonic of laryngopharyngeal reflux (Figure). This may be the only finding, or there may be thickening of the interarytenoid mucosa or tracheal mucosal erythema. However, during gastro-oesophagoscopy the larynx is difficult to view and the remainder of the mucosa may have a normal appearance. Hence the 'negative findings'.

Management

The diagnosis of laryngopharyngeal reflux is often confirmed by a therapeutic trial of medication to switch off the acid (H_2-receptor antagonist or proton pump inhibitor) and antireflux lifestyle changes. Many people have resolution of their various soft symptoms with such measures. People with bronchitis or asthma may report an improvement in their symptoms or reduced medication requirements. It is important to note that H_2-receptor antagonists or proton pump inhibitors do not prevent reflux. They do, however, remove acid from the equation so the reflux has neither acid nor activated gastric enzymes. The mucosa is then able to recover.

The importance of antireflux lifestyle changes (see the box on page 96) should not be underestimated. In particular, it is important for the patient to avoid throat clearing. Many people are unaware of having this habit, whereas their partner or work colleagues may be continually reminded of their presence by their habit. The mucosal irritation from laryngopharyngeal reflux may cause repeated throat clearing or coughing, which further traumatises the vocal processes of the arytenoids. A vicious cycle ensues, which when broken produces a considerable improvement in the sensitivity of the larynx. This throat clearing–irritation cycle may also be the cause of a 'postnasal drip'. The nose and sinuses secrete approximately one litre of mucus daily, which drains posteriorly and is swallowed. Laryngeal irritation due to laryngopharyngeal reflux will cause throat clearing or coughing, at which point the patient may feel a small amount of this physiological mucus and deem it to be the culprit.

For long term management, medication may be required on a daily basis. No major sequelae have been found from long term acid suppression. Some people may be best managed by titrating their medication against symptoms, while others may require only prophylactic use (e.g. before an anticipated rich or spicy meal). All should be aware of the importance of antireflux lifestyle changes. MT