

# COUGH & GORD

## Agreed assumptions

### Chronic cough

5th most common complaint to GP's

In 43% of GORD-induced cough, classical reflux symptoms not present

### Common causes of chronic cough

1. Post-infectious bronchial inflammation
2. Post-nasal drip
3. Asthma
4. Gastro-oesophageal reflux disease

These account for 65% - 95% of cases referred to a Specialist

More than one aetiologic factor is found in 25% of cases

### Pathogenesis of reflux-induced cough

#### Vagal reflex

Strong temporal correlation between distal oesophageal acidification and cough

Oesophageal lignocaine blocks acid-induced coughs

Inhaled anticholinergic inhibits acid-induced coughs

#### Aspiration

Posterior laryngitis & ulceration

Biopsy evidence of chronic inflammation

Progressive interstitial fibrosis in some patients

Correlation with proximal acid reflux

## Investigation

### Diagnosis of reflux-induced cough

History & Examination

- Exclude other 3 common causes of cough

- Note presence of typical reflux symptoms

CXR

Endoscopy

Oesophageal manometry

24-hour oesophageal pH monitoring (gold standard)

### 24 hr pH monitoring

2-channel rather than single channel

Positive if overall acid exposure time

- Distal electrode 4% pH<4

- Proximal electrode 0.6% pH<4

Note the correlation of acid reflux with cough episodes

# Treatment

## Medical therapy

Do not commence therapeutic trial until investigation completed (if necessary facilitate early endoscopy via Justin Bessell, Prof. Watson).

Response to acid inhibition may take up to 90 days

Do not definitively assess response before this time

BD PPI therapy e.g. omeprazole 20mg BD

70% response rate after 3 months

## Anti-reflux surgery

### Selection criteria

Asthma excluded

No ACE inhibitors

Bronchitis excluded

No smoking

No PNDS

Referred by Resp, ENT, Gastro

Failure or intolerance to long-term PPI

### Patients

4 groups of laryngo-pulmonary symptoms

- Adult-onset asthma
- Hoarse voice
- Pneumonia , COAD, pulm fibrosis
- Chronic cough

Reflux **must** be proven by 24 hr pH or endoscopic oesophagitis or both

### Operation

Anterior 180° fundoplication

LOS = 2 days

### Anticipated results

No cough – 30%

Improvement > 50% - 30%

Improvement < 50% - 10%

No change – 25%

Worse – 5%

### Results - patient satisfaction

Q: Would you have surgery again?

A: At one year:

Satisfied 67%

Not satisfied 20%

Unsure 13%

## Summary

Patients who do not have objective evidence of reflux (endoscopy, pH) will not be considered for surgery.

Of those with proven reflux, 2/3 will achieve > 50% improvement in cough.

90% will achieve eradication of (any) concomitant of reflux symptoms

No predictive variables for response

Trend for better result if younger & normal persitalsis

Patients with suspected reflux-induced cough need to be carefully counselled about their expectations and the limitations of surgery in this setting

## Unresolved issues

1. How to treat patients with no (obvious) other cause for cough, who have unproven reflux on endoscopic and pH criteria, and who do not respond to 3 months of high-dose acid suppression?
2. How to manage the cycle of patients between Resp, Upper GI and ENT?
3. Can Resp directly refer appropriate patients for endoscopy and 24hr pH without Upper GI review?
4. What information can ENT contribute?