

## REFERENCES

1. Hayat JO *et al.* Is pepsin detected in the saliva of healthy individuals? *Gut* 2013; 62 (Suppl 1) A108–A109.

### S33 DOES ANTI-REFLUX SURGERY SYMPTOMATICALLY IMPROVE EXTRA-OESOPHAGEAL SYMPTOMS AND QUALITY OF LIFE IN GASTRO-OESOPHAGEAL REFLUX DISEASE

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**Introduction** Extra-oesophageal (ie laryngeal, pharyngeal and pulmonary) symptoms of gastro-oesophageal reflux (GOR) are common clinical problems. GOR can cause a chronic cough and its prevalence is higher in asthmatics than in the general population. Proton pump inhibitors (PPI) are the most effective available therapy but in those who remain symptomatic despite optimal medical therapy anti-reflux surgery is considered.

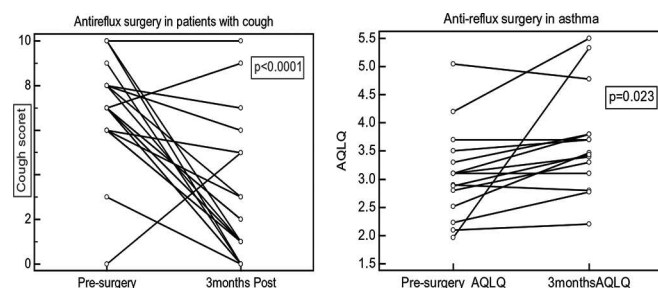
**Method** At our central England teaching hospital a database was set up for all respiratory patients with GOR who were referred for anti-reflux surgery. Symptoms were assessed at baseline (pre-surgery), 3 months post surgery and 12 months post surgery using the asthma quality of life questionnaire (AQLQ, range; 0 = worst -7 = best) and a cough symptom questionnaire (range; 0 = no cough -10 worst cough).

**Results** A total of 61 patients (70% females) with mean age of 48.64 (range 20 - 78 years) were analysed. 34 patients were asthmatics and 26 patients had a chronic cough. 1 patient was excluded as they had vocal cord dysfunction.

All patients had significant GOR confirmed by oesophageal manometry and pH reflux studies [mean DeMeester score of 46.6 (SD = 38.4, normal range <14.72), hypotonic mean lower oesophageal sphincter pressure of 5.7 mmHg (SD 3.78, normal range = 12–25) and a mean% reflux time of 11.9 (SD 8.98, normal range <4%)]. The baseline mean FEV<sub>1</sub> in the asthma group was 2.08 (mean FEV<sub>1</sub>/FVC 0.72) compared to 2.61 (mean FEV<sub>1</sub>/FVC 0.81) in the cough group.

There was significant improvement in reflux symptoms. In the asthma group, the mean AQLQ score improved from baseline (3.05, SD = 0.8) to 3 months post surgery (3.68, SD = 0.9) ( $p = 0.0235$ ), and 12 months post surgery (3.5, SD = 1.2) which did not reach statistical significance ( $p = 0.1$ ) [see Figure 1]. There was also marked improvement in the cough symptom score from baseline (7.0, SD = 2.3) to 3 months post surgery (2.8, SD = 3.1) ( $p = <0.0001$ ) [see Figure 1].

**Conclusion** In patients with evidence of severe GOR who remain symptomatic despite optimal medical management, anti-reflux surgery can improve cough and asthma related quality of life.



**Abstract S33 Figure1 Does anti-reflux surgery symptomatically improve extra-oesophageal symptoms and quality of life in gastro-oesophageal reflux disease**

### S34 MANAGEMENT OF CHRONIC COUGH IN PRIMARY CARE

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**Background** Chronic cough is a common symptom in primary care. There appears to be significant variation in investigation and empirical treatment prior to referral on to secondary care. We looked at; a) Investigation/treatment undertaken prior to referral to secondary care and b) a survey of how GPs manage cough.

**Method** The study consisted of; a) Retrospective review of referrals (January 2012-January 2013) to a secondary care cough clinic and b) an online questionnaire on cough distributed to colleagues in primary care.

**Results** Of the primary care referrals, 47/58 casenotes were available (mean age was 59(27–84), 63% female). Only 4/47 (8.7%) were current smokers. Median duration of symptoms at referral was 7 months (2–420), 35/47(74.5%) had a chest X-Ray prior to referral, 18/47(39.1%) spirometry, 3/47 had used ACE inhibitors. Most investigations performed prior to referral were normal. Empirical treatment attempted included; antireflux therapy 23/47(50%), inhaled corticosteroids 12/47(26.1%) and nasal steroids 9/47(19.6%). Various other treatments were used (including cough suppressants, antihistamines, leukotriene receptor antagonists and antibiotics) in 22/47(46%).

Only 16/51(31%) of questionnaire respondents were aware of published cough guidelines. Most respondents were aware of the definition of chronic cough (37/51(72.5%)). When asked to list the 3 commonest causes of chronic cough, asthma was identified by 33 (64.7%), GORD by 38 (74.5%) and rhinitis/post-nasal drip by 20 (39.2%). Treatments most commonly initiated included acid suppression (PPI's) 33/51(64.7%), nasal spray 18/51(35.3%) and inhaled steroids 4/51(7.8%). The majority of patients do not get referred on to secondary care; 34/51(66.6%) of respondents estimate they refer less than 10% of cases. Referral was usually triggered by the following factors - unclear diagnosis, failed treatment, patient concern or abnormal tests.

**Conclusions** Many patients are referred on to secondary care without basic investigations and appropriate trials of recommended therapy. Knowledge of chronic cough in primary care is limited and most GPs are unaware of published guidelines. Increased education and awareness of cough guidelines could improve management of cough in the community. This is a topic that requires further systematic study as there is very little research in this area.

## Cutting edge respiratory science

### S35 MIF-CXCR4 AS A NOVEL AXIS FOR MESENCHYMAL STEM CELLS RECRUITMENT TO TUMOURS IN VIVO

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Mesenchymal Stem Cells (MSCs) are inherently tumour-homing, immunosuppressive and can be isolated, cultured, expanded, and transduced, making them viable candidates for cell therapy. MSCs can also be useful in allogeneic transplantation because of their immunocompatibility. MSCs have the capacity to home specifically to tumours including gliomas and breast, colon, ovarian, and lung carcinomas, among many other primary and metastatic tumours. Some discrepancies are however present regarding the mechanism and the involvement of molecules/receptors in MSC homing to tumours.