Conclusion Compared with surgery alone, NCRT with cisplatin and 5-Fluorouracil does not improve overall survival but enhances postoperative mortality for patients with stage I or II OC (Clinical Trial.gov identifier NCT 00047112).

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Competing interests None declared.

OC-087 CLINICAL EVALUATION OF OESOPHAGEAL MUCOSAL INTEGRITY AND ACID SENSITIVITY IN PATIENTS WITH NERD. A STUDY USING BASAL IMPEDANCE AND ASSESSMENT OF MUCOSAL RECOVERY AFTER ACID CHALLENGE

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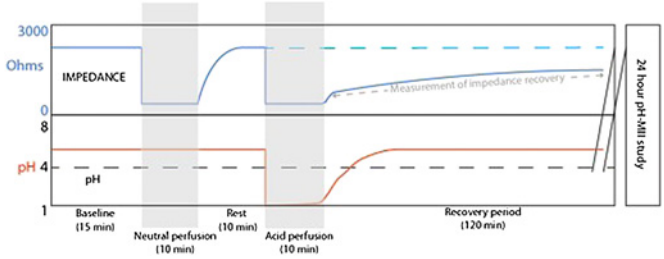
Introduction Patients with NERD have no erosions but impaired oesophageal mucosal integrity, that is, dilated intercellular spaces. It has been proposed that such microscopic changes can underlie symptoms in NERD, however, the relationship between impaired mucosal integrity and acid perception is unclear. Thus far, oesophageal mucosal integrity has been studied in vitro. Recently, oesophageal impedance basal values have been suggested as an in vivo surrogate to assess mucosal integrity in man. Low basal impedance is seen in patients with higher oesophageal acid exposure, and improves after PPI treatment. Oesophageal mucosal integrity, as expressed by basal impedance, is probably a dynamic process reflecting (1) the damaging effect of repeated acid reflux events and (2) the mucosal capacity to recover integrity. We hypothesised that there may be a relationship between mucosal integrity, recovery capacity and acid perception. We **aimed** to study the relationship between the dynamic properties of oesophageal mucosal integrity after acid challenge and symptom perception in patients with reflux symptoms.

Methods We studied 53 patients with typical reflux symptoms and no oesophagitis. A combined pH-MII catheter was inserted, and baseline distal oesophageal mucosal impedance measured for 15 min (and continuously thereafter). We performed a 10 min mid-oesophageal perfusion (10 ml/min) of a neutral solution. After a 10 min rest period an acid perfusion was performed with pH1 solution. Symptoms were recorded with a visual analogue scale. Impedance recovery was observed for 2 h post-acid perfusion in ambulatory conditions. Subjects then completed a 24 h reflux study.

Results There was significant inter-individual variability in pre-perfusion impedance baselines (mean 2059Ω, range 462–5388). Neutral perfusion caused a drop in impedance that recovered fully in 10 min. Acid perfusion caused a drop in impedance that was slow to recover. The mean impedance recovery rate was 7.5 Ω/min (25th–75th percentile=3.1–10.9). 32 of 53 patients perceived heartburn during acid perfusion. Patients with slower impedance recovery (<25th percentile, n=12) had lower basal impedance (mean±SEM 1331Ω±256 vs 3325Ω±325, p<0.01), higher 24 h acid exposure (5.2%±1.0 vs 1.7%±0.3, p<0.01), and more often acid sensitivity (10/12 vs 5/13, p<0.05) than those with faster impedance recovery (>75th percentile, n=13).

Conclusion A continuous impaired mucosal integrity (low impedance) might be a consequence of repeated reflux episodes with slow recovery. There is a link between mucosal integrity, recovery capacity and symptom perception. Low basal impedance and slow recovery after acid challenge are associated with increased acid sensitivity.



Abstract OC-087 Figure 1

Competing interests None declared.

OC-088 IGE SENSITISATION TO FOOD AND INHALANT ALLERGENS IN UK ADULTS WITH EOE: A PILOT STUDY

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Introduction Food and inhalant allergens have been implicated as triggers of eosinophilic oesophagitis (EoE). Although topical steroid therapy remains the mainstay of treatment in adults, elemental and six food elimination diets have been shown to decrease oesophageal eosinophilia and improve symptoms in children and more recently in adults. Limited data in North American adult EoE patients suggests that food allergens commonly associated with IgE sensitisation are peanut, egg and soy. We hypothesised that IgE sensitisation to foods and/or cross-reactive inhalant allergens plays a role in EoE. To test the hypothesis we designed a pilot study to explore possible relationships between IgE sensitisation to food/inhalant allergens and EoE in a UK adult population.

Methods Ten adult patients with biopsy-proven EoE (>15 eosinophils/HPF) but no previously documented food allergy were included. Participants completed food allergy and dysphagia questionnaires, and underwent skin prick testing (SPT) to a battery of inhalant allergens: timothy grass, birch, six grasses, three trees, plane, mugwort, ragweed, *Alternaria*, *Cladosporium*, *Aspergillus*, house dust mite (HDM) and latex. Foods tested were milk, egg, prawn and cod and plant-derived foods: peanut, hazelnut, sesame, soy, mustard, corn, wheat, barley, celery, raw potato, apple, peach, grape, orange, tomato, melon, kiwi and strawberry. All SPT's were performed in the presence of positive (histamine) and negative (saline) controls. A wheal size 3 mm or more than the negative control was considered positive.

Results Of the 10 subjects (7 m, median age 33 years, range 26–52) who completed the study, eight reported dysphagia to solids nine times or more in the previous month. Two patients had required hospital admission in the previous month. Nine subjects identified one or more specific foods as a trigger for symptoms. The most commonly cited foods that were thought to trigger symptoms were meat (lamb or chicken) in four, nuts in three and citrus fruits or apples in three. Nine subjects had positive skin tests to both grass pollen and HDM; four of these subjects also had positive tests to at least three other inhalant allergens. These four subjects had the highest number of positive skin tests to foods (median of 9).The most common positive food SPTs were barley (7), wheat (5) and potato (4).

Conclusion The high prevalence of IgE sensitisation to foods in this pilot study supports our hypothesis that this plays a role in adult EoE pathophysiology. The high rates of barley and wheat sensitisation raise the possibility of IgE crossreactivity with homologous plant allergens in EoE, notably grass pollen. Further larger studies