

This site uses cookies. [More info](#)



CALL FOR ABSTRACTS

Abstract Submission Deadline: 30 April 2017



[Home](#) / [Online First](#)

Article Text

Article menu



Neurogastroenterology  
Original article

PDF

## Determinants of reflux-induced chronic cough

Thomas V K Herregods<sup>1</sup>, Ans Pauwels<sup>2</sup>, Jafar Jafari<sup>3</sup>, Daniel Sifrim<sup>3</sup>, Albert J Bredenoord<sup>1</sup>, Jan Tack<sup>2</sup>,  
André J P M Smout<sup>1</sup>

[Author affiliations](#) +

### Abstract

**Objective** Gastro-oesophageal reflux is considered to be an important contributing factor in chronic unexplained cough. It remains unclear why some reflux episodes in the same patient causes cough while others do not. To understand more about the mechanism by which reflux induces cough, we aimed to identify factors which are important in triggering cough.

**Design** In this multicentre study, 49 patients with reflux-associated chronic cough were analysed using 24-hour pH-impedance-pressure monitoring. The characteristics of reflux episodes that were followed by cough were compared with reflux episodes not associated with cough.

**Results** The majority (72.4%) of the reflux episodes were acidic (pH<4). Compared with reflux episodes that were not followed by cough, reflux episodes that were followed by a cough burst were associated with a higher proximal extent (p=0.0001), a higher volume clearance time (p=0.002) and a higher acid burden in the preceding 15 min window (p=0.019) and higher reflux burden in the preceding 30 min window (p=0.044). No significant difference was found between the two groups when looking at the nadir pH, the pH drop, the acid clearance time or the percentage of reflux episodes which were acidic.

**Conclusions** The presence of a larger volume of refluxate and oesophageal exposure to reflux for a longer period of time seems to play an important role in inducing cough, while the acidity of the refluxate seems to be less relevant. This helps explain the observation that most patients with chronic cough tend not to benefit from acid inhibitory treatment.

<http://dx.doi.org/10.1136/gutjnl-2017-313721>

## Statistics from Altmetric.com



■ Picked up by 1 news outlets  
■ 2 readers on Mendeley

[See more details](#)

[View Full Text](#)

## Footnotes

**Contributors:** TVKH designed the study, collected data, analysed and interpreted data, drafted the manuscript, and critically revised the article for important intellectual content; AJB and AJPMS designed the study, interpreted data and critically revised the manuscript for important intellectual content; AP and JJ collected data, interpreted data, and critically revised the article for important intellectual content. DS and JT interpreted data and critically revised the article for important intellectual content.

**Funding:** TVKH is funded by the European Union's Seventh Framework Programme under REA grant agreement no. 607652 (NeuroGut).

**Competing interests:** AJB received research funding from Endostim, Medical Measurement Systems, Danone and Given and received speaker and/or consulting fees from MMS, Astellas, AstraZeneca and Almirall; DS received a research grant from Sandhill Sc USA.

**Ethics approval:** Review board of the Academic Medical Centre.

**Provenance and peer review:** Not commissioned; externally peer reviewed.

## Request permissions

If you wish to reuse any or all of this article please use the link below which will take you to the Copyright Clearance Center's RightsLink service. You will be able to get a quick price and instant permission to reuse the content in many different ways.

[Request permissions](#)

**Copyright information:** Published by the BMJ Publishing Group Limited. For permission to use (where not already granted under a licence) please go to <http://www.bmj.com/company/products-services/rights-and-licensing/>

Read the full text or download the PDF:

[Buy this article](#)

[Subscribe](#)



[Log in](#)**BMJ** Careers**Consultant Paediatric Gastroenterologist x2****Newcastle, Newcastle Upon Tyne** |

Replacement post to join 3 Consultant. The post includes out-of-hours Paediatric Gastroenterology on-call & ward week cover 1:5

Recruiter: Newcastle Upon Tyne Hospitals NHS Foundation Trust

[Apply for this job](#)**Consultant Gastroenterologists****Crewe, Cheshire** | **£76,001 to £102,465 pa**

You will be joining a progressive, successful, award winning Foundation Trust.

Recruiter: Mid Cheshire Hospitals NHS Foundation Trust

[Apply for this job](#)**10 Clinical Senior Lecturer Posts****Norwich, Norfolk** |

These posts are available immediately on an indefinite basis and may be full or part-time.

Recruiter: University of East Anglia

[Apply for this job](#)**Consultant Gastroenterologist (ERCP)****Dubai, Abu Dhabi (AE)** |

Mediclinic Middle East is seeking highly competent individuals with higher level certifications from reputable institutions.

**We recommend**[Determinants of perception of heartburn and regurgitation.](#)

A J Bredenoord et al., Gut, 2005

[Weakly acidic reflux in patients with chronic unexplained cough during 24 hour pressure, pH, and impedance monitoring.](#)

D Sifrim et al., Gut, 2005

[Gastro-oesophageal reflux and aspiration of gastric contents in adult patients with cystic fibrosis.](#)

K Blondeau et al., Gut, 2008

[Management of heartburn not responding to proton pump inhibitors.](#)

R Fass et al., Gut, 2009

[Relevance of volume and proximal extent of reflux in gastro-oesophageal reflux disease.](#)

D Sifrim, Gut, 2005

[Determinants of Reflux-Induced Chronic Cough](#)



## CONTENT

- [Latest](#)
- [Current issue](#)
- [Archive](#)
- [Browse by topic](#)
- [Most read articles](#)

## JOURNAL

- [About](#)
- [Editorial board](#)
- [Thank you to our reviewers](#)
- [Sign up for email alerts](#)
- [Subscribe](#)

## AUTHORS

- [Instructions for authors](#)
- [Submit an article paper](#)
- [Open Access at BMJ](#)

## HELP

- [Contact us](#)
- [Reprints](#)
- [Permissions](#)
- [Advertising](#)
- [Feedback form](#)





[Website Terms & Conditions](#)

[Privacy & Cookies](#)

[Contact BMJ](#)

Online: ISSN 1468-3288    Print: ISSN 0017-5749

Copyright © 2017 BMJ Publishing Group Ltd & British Society of Gastroenterology.

京ICP备15042040号-3